



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
4330 EAST WEST HIGHWAY
BETHESDA, MD 20814

DATE: April 22, 2015

BALLOT VOTE SHEET

This document has been electronically
approved and signed.

TO: The Commission
Alberta E. Mills, Acting Secretary

THROUGH: Stephanie Tsacoumis, General Counsel
Patricia Adkins, Executive Director

FROM: Patricia M. Pollitzer, Assistant General Counsel
Mary A. House, Attorney, OGC

SUBJECT: Final Rule to Amend Substantial Product Hazard List to Include Seasonal and
Decorative Lighting Products

BALLOT VOTE DUE: April 28, 2015

The Office of the General Counsel is providing for Commission consideration the attached draft final rule for publication in the *Federal Register*. The final rule would amend the Commission's rule at 16 C.F.R. part 1120, Substantial Product Hazard List, to state that seasonal and decorative lighting products that do not contain one or more of three readily observable characteristics (minimum wire size, sufficient strain relief, or overcurrent protection) constitute a substantial product hazard under the Consumer Product Safety Act (CPSA).

Please indicate your vote on the following options:

- I. Approve publication of the attached document in the *Federal Register*, as drafted.

(Signature)

(Date)

CPSC Hotline: 1-800-638-CPSC(2772) ★ CPSC's Web Site: <http://www.cpsc.gov>

- II. Approve publication of the attached document in the *Federal Register*, with changes.
(Please specify.)

(Signature)

(Date)

- III. Do not approve publication of the attached document in the *Federal Register*.

(Signature)

(Date)

- IV. Take other action. (Please specify.)

(Signature)

(Date)

Attachment: Draft *Federal Register* Notice: Final Rule to Amend Substantial Product Hazard
List to include Seasonal and Decorative Lighting Products

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Billing Code 6355-01-P

CONSUMER PRODUCT SAFETY COMMISSION

16 CFR Part 1120

[CPSC Docket No. CPSC-2014-0024]

Substantial Product Hazard List: Seasonal and Decorative Lighting Products

AGENCY: Consumer Product Safety Commission.

ACTION: Final rule.

SUMMARY: The Consumer Product Safety Commission (“CPSC” or “Commission”) is issuing a final rule to specify that seasonal and decorative lighting products that do not contain any one of three readily observable characteristics (minimum wire size, sufficient strain relief, or overcurrent protection), as addressed in a voluntary standard, are deemed a substantial product hazard under the Consumer Product Safety Act (“CPSA”). Additionally, the Commission is making a technical amendment to reformat incorporations by reference in this part.

EFFECTIVE DATE: The rule takes effect on **[insert date that is 30 days after publication in the *Federal Register*]**. The incorporation by reference of the publication listed in this rule is approved by the Director of the Federal Register as of **[insert date that is 30 days after publication in the *Federal Register*]**.

FOR FURTHER INFORMATION CONTACT: Mary Kroh, Office of Compliance and Field Operations, Consumer Product Safety Commission, 4330 East West Highway, Bethesda, MD 20814; telephone: 301-987-7886; mkroh@cpsc.gov.

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SUPPLEMENTARY INFORMATION:

I. Background and Statutory Authority

A. *Statutory Authority*

Section 223 of the Consumer Product Safety Improvement Act of 2008 (“CPSIA”), amended section 15 of the CPSA, 15 U.S.C. 2064, to add a new subsection (j). Section 15(j) of the CPSA provides the Commission with the authority to specify, by rule, for any consumer product or class of consumer products, characteristics whose existence or absence are deemed a substantial product hazard under section 15(a)(2) of the CPSA. Section 15(a)(2) of the CPSA defines a “substantial product hazard,” in relevant part, as a product defect which (because of the pattern of defect, the number of defective products distributed in commerce, the severity of the risk, or otherwise) creates a substantial risk of injury to the public. A rule under section 15(j) of the CPSA (a “15(j) rule”) is not a consumer product safety rule that imposes performance or labeling requirements for newly manufactured products. Rather, a 15(j) rule is a Commission determination of a product defect based upon noncompliance with specific product characteristics that are addressed in an effective voluntary standard. For the Commission to issue a 15(j) rule, the product characteristics involved must be “readily observable” and have been addressed by a voluntary standard. Moreover, the voluntary standard must be effective in reducing the risk of injury associated with the consumer products, and there must be substantial compliance with the voluntary standard.

B. *Background*

On October 16, 2014, the Commission issued a notice of proposed rulemaking (“NPR”) in the *Federal Register* to amend the substantial product hazard list in 16 CFR part 1120 (“part 1120”) to add seasonal and decorative lighting products that lack certain readily observable

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safety characteristics addressed by a voluntary standard because such products pose a risk of electrical shock or fire. 79 FR 62081. The comment period on the proposed rule closed on December 30, 2014. As detailed in section II of this preamble, the Commission received 62 comments on the proposed rule.

The Commission is now issuing a final rule to amend part 1120 by adding three readily observable characteristics of seasonal and decorative lighting products: (1) minimum wire size; (2) sufficient strain relief; and (3) overcurrent protection. After reviewing the comments, the Commission made two clarifications in the final rule to define more clearly products that do not fall within the scope of the rule. Additionally, based on the comments, the Commission has corrected a citation to Underwriters Laboratories (“UL”), *Standard for Safety for Seasonal and Holiday Decorative Products*, UL 588, 18th Edition, approved on August 21, 2000 (“UL 588”), in the final rule. As of the effective date of this rule, seasonal and decorative lighting products that do not contain any one of these three readily observable characteristics, as set forth in UL 588, are deemed to create a substantial product hazard under section 15(a)(2) of the CPSA.

C. Seasonal and Decorative Lighting Products

The final rule uses the phrase “seasonal and decorative lighting products” to identify the lighting products that are within the scope of the rule. The final rule defines “seasonal and decorative lighting products” consistent with the description of products subject to UL 588, as set forth in section 1 of UL 588. “Seasonal and decorative lighting products” are portable, plug-connected, temporary-use lighting products and accessories that have a nominal 120-volt input voltage rating. Lighting products within the scope of the rule are factory-assembled with push-in, midget- or miniature-screw base lampholders connected in series or with candelabra- or intermediate-screw base lampholders connected in parallel, directly across the 120 volt input.

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Such lighting products include lighted decorative outfits, such as stars, wreathes, candles without shades, light sculptures, blow-molded (plastic) figures, and animated figures. Lighting products outside the scope of the rule include: battery-operated products; solar-powered products; products that operate from a transformer or low-voltage power supply; flexible lighting products incorporating non-replaceable series and series/parallel-connected lamps enclosed within a flexible polymeric tube or extrusion; and portable electric lamps that are used to illuminate seasonal decorations.

This definition of “seasonal and decorative lighting products” is adapted from descriptions of lighting products defined in section 1 of UL 588. All in-scope products are covered by UL 588. Lighting products within the scope of the rule are typically used seasonally and provide only decorative lumination. The products typically are displayed for a relatively short period of time and are then removed and stored until needed again. UL 588 section 2.43 defines the term “seasonal (holiday) product” as: “[a] product painted in colors to suggest a holiday theme or a snow covering, a figure in a holiday costume, or any decoration associated with a holiday or particular season of the year.” UL 588 defines “decorative light products” (decorative outfits) as factory-assembled, electrically powered units providing a seasonal or holiday decorative display having illumination or other decorative effects. A decorative product may contain a lighting string as part of the decorative illumination. A lighting string provided with decorative covers over the lamps is a decorative outfit. If not constructed properly, lighting powered by 120 volts can be damaged easily and can pose a risk of electrical shock or fire.

Lighting products that are excluded from the scope of the rule are subject to different voluntary standards or do not present the same risk of injury. Based on the comments to the proposed rule, the final rule clarifies that “solar-powered products” are not within the scope of

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the rule because solar-powered seasonal lights are not connected to a 120-volt branch circuit and do not present the same risk of injury due to shock and fire. Additionally, the final rule clarifies the type of tube lighting that is not within the scope of the rule. The proposed rule used the phrase “flexible tube lighting strings of lights intended for illumination.” The final rule replaces this phrase with: “flexible lighting products incorporating non-replaceable series and series/parallel connected lamps enclosed within a flexible polymeric tube or extrusion.” The description of tube lighting was revised to clarify that such tube lighting is not covered by UL 588 but is covered by another UL standard, UL 2388 Flexible Lighting Products. This clarification is not intended to alter the scope of products covered by the rule; the revision is intended to clarify that flexible lighting products covered by UL 2388 are not within the scope of the rule. Staff Briefing Package: Final Rule to Amend 16 C.F.R. Part 1120 to Add Seasonal and Decorative Lighting Products, dated April 22, 2015 (“Staff Final Rule Briefing Package”) at 3, available at: [insert link].

D. Applicable Voluntary Standard

UL 588-2000 is the current voluntary standard applicable to seasonal and decorative lighting products. UL 588 has been updated over the years to address various safety issues to make seasonal and decorative lighting products safer, *see* 79 FR 62083; Staff’s Briefing Package on Seasonal and Decorative Lighting Products, dated October 2, 2014 (“Staff NPR Briefing Package”), Tab B, Abbreviated History of Seasonal and Decorative Lighting Products and the Associated UL Standard, at:

<http://www.cpsc.gov/Global/Newsroom/FOIA/CommissionBriefingPackages/2015/ProposedRuletoAmendSubstantialProductHazardListtoIncludeSeasonalandDecorativeLightingProducts.pdf>. Specifically, UL 588, made effective on January 1, 1997, set forth the current requirements for

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overcurrent protection and minimum wire size; and the current strain relief requirement has been in effect since 1994.

Table 2 in the preamble to the NPR, at 79 FR at 62083, summarized the readily observable characteristics for seasonal and decorative lighting products. Table 2 was intended to present a summary of the relevant provisions of UL 588. As one commenter noted, the “strain relief” column shown in Table 2 in the preamble to the NPR cited SB16 of UL 588, instead of section SB15, and showed the strain relief load as 24 lbs. instead of 20 lbs. Table 1, below, is a revised version of Table 2 from the preamble to the NPR. Table 1 shows the correct citation to section SB15 of UL 588 and the correct strain relief loads. Staff Final Rule Briefing Package at 3-4.

Table 1. Readily Observable Characteristics for Seasonal and Decorative Lighting Products

Seasonal and Decorative Lighting Products		Readily Observable Characteristics			
		Minimum Wire Size (AWG) <i>UL 588 Section 6</i>	Sufficient Strain Relief (load weight)		Overcurrent Protection Qty. <i>UL 588 Section 7</i>
			Plugs/Load Fittings <i>UL 588 Sections 15 and 71</i>	Lampholders <i>UL 588 Sections 79 and SB15</i>	
Series-connected lighting product	With Load Fitting	20 (Polarized Plug)	20 lbs. (smaller than 18 AWG)	20 lbs.	1
		22 (Non-Polarized Plug)		8 lbs.	2
	Without Load Fitting	22 (Polarized Plug)		8 lbs.	1
		22 (Non-Polarized Plug)		8 lbs.	2
Parallel-connected light product	With or Without Load Fitting	20 (XTW) 18 (all others) All Polarized Plugs	20 lbs. (20 AWG) 30 lbs. (18 AWG)	20 lbs.	1

E. Risk of Injury

1. Electrocutation and Fire Hazards

The preamble to the NPR explained that consumers can be seriously injured or killed by electrical shocks or fires if seasonal and decorative lighting products are not made using minimum wire size, sufficient strain reliefs, or overcurrent protection. 79 FR at 62083-84.

Lighting products that conform to the minimum wire size requirement in UL 588 will support the

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product's electrical load without causing overheating. Additionally, lighting products that conform to the minimum wire size requirement provide the necessary mechanical strength to endure handling and other forces imposed on a seasonal lighting product during expected use of the product. Likewise, lighting products that conform to the strain relief requirements in UL 588 will endure use, including pulling and twisting the product, without mechanical damage to the electrical connections. Damaged electrical connections, such as broken strands of copper conductor inside the insulated wiring, could cause overheating (leading to a fire), despite overcurrent protection, or separation of wires from their terminal connections, which could expose bare energized conductors leading to electrical shock. Finally, UL 588's requirements for overcurrent protection prevent products from overheating and melting due to faults, damage, or excessive loads. Such failures carry a potential risk of fire.

2. Incident Data

For the NPR, CPSC staff conducted a search of the Injury or Potential Injury Database ("IPII"), National Electronic Injury Surveillance System ("NEISS"), and the Death Certificate Database ("DTHS") for incidents that involved seasonal and decorative lighting products reported between 1980 and May 2014. CPSC staff has updated this data and found a total of 133 fatal incidents causing 258 deaths, and 1,405 nonfatal incidents that involved seasonal and decorative lighting products that were in-scope and that occurred between 1980 and 2013.¹ For the final rule, staff searched for in-scope incidents reported from January 2014 through March 2015. CPSC staff found an additional 25 in-scope incidents that occurred in 2014, and staff identified seven incidents that occurred in 2015. All of the 25 incidents in 2014 were nonfatal incidents. One of the seven incidents in 2015 was a fatal incident that caused one death.

¹ Staff has updated incident data from 1980 to 2013 to include retailer reports.

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Table 2 shows the annual average number of incidents for five different periods for each of the fatal incidents, deaths, and nonfatal incidents. The 35-year period is broken up into five, 7-year periods. Reporting may not be complete for the most recent period because sometimes CPSC receives reports of incidents years after they have occurred. Note that the average number of incidents and deaths has declined over the 35-year period represented in Table 2. *See* Tab E of Staff Final Rule Briefing Package.

**Table 2. Seasonal and Decorative Lighting Product
Annual Average of Fatal Incidents, Deaths, and
Nonfatal Incidents from 1980–2014**

Years	Fatal Incidents	Deaths	Nonfatal Incidents
1980–1986	6.7	12.6	54.1
1987–1993	6.3	13.6	40.9
1994–2000	2.9	5.9	37.4
2001–2007	2.3	3.9	38.6
2008–2014	0.9	1.0	33.3

F. Compliance Efforts to Address the Hazard

As noted in the preamble to the NPR, in numerous instances, CPSC staff has considered the absence of one or more of three readily observable characteristics (minimum wire size, sufficient strain relief, and overcurrent protection) to present a substantial product hazard and has sought appropriate corrective action to prevent injury to the public. 79 FR at 62084. Since the Commission published the NPR (from September 2014 to February 2015), CPSC has not conducted any recalls of seasonal and decorative lighting products, and identified 11 shipments at import involving a total of approximately 37,000 lighting units, where the seasonal and decorative lighting products may not comply with UL 588. *See* Tab D of Staff Final Rule Briefing Package.

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II. Summary of Comments on the Proposed Rule and CPSC's Responses

The Commission received 62 comments and questions in response to the NPR. Substantive comments from several manufacturers expressed general support for the proposed rule, while the consumer commenters were generally opposed to the NPR. Commenters who opposed the rule often appeared to misunderstand the nature of the rulemaking, the Commission's authority to issue such a rule, and the effect of such a rule on industry and consumers. The Commission received one comment that addressed technical issues associated with UL 588. We summarize the comments and the Commission's responses below. Three clarifications were made in the final rule based on the comments, described in sections I.C and I.D of this preamble, and in responses to comments 14, 15, and 18.

A. General Comments

Comment 1: Many commenters argued that the proposed rule represents government waste, government overreach, or would result in a "waste of money" because the incident data do not demonstrate a relationship between the incident data and gaps in the UL standard.

Response 1: The Commission disagrees with these commenters. The CPSC's mission is to protect consumers from unreasonable risks of injury or death from consumer products. The rule would further this mission by allowing staff to remove more effectively seasonal and decorative lighting products from commerce if these products present a risk of fire or electrical shock to consumers. The rule will not result in waste, nor will the rule increase costs. In fact, the rule should decrease CPSC's costs associated with an existing practice of determining that seasonal and decorative lighting products that do not conform to UL 588 present a defect that rises to a substantial product hazard.

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Currently, when CPSC staff encounters seasonal and decorative lighting products that do not appear to meet the requirements of UL 588, field and import staff must collect samples of the products and send them to CPSC's National Product Testing and Evaluation Center ("NPTEC") for further testing. CPSC engineers evaluate and test the samples and provide their assessment to Compliance staff. Compliance staff, relying on CPSC technical staff's assessment, makes a preliminary determination of whether the product presents a substantial product hazard. If Compliance staff makes a preliminary determination of a substantial product hazard, CPSC staff informs the manufacturer or importer of the defective products. Compliance staff then proceeds to negotiate seizure, destruction, or a recall (or some combination of actions) with the firm. Firms may dispute CPSC staff's preliminary determination of a substantial product hazard for failure to conform to UL 588, which can add delay in removing defective products from the market and increase CPSC staff's costs related to supporting a finding of a substantial product hazard.

When nonconforming seasonal and decorative lighting products are identified, CPSC staff must address with each manufacturer or importer the missing safety requirements from UL 588 that staff determined created a substantial product hazard. This process can be time-consuming and resource intensive. Congress has provided the Commission with the ability to streamline the administrative process of substantial product hazard determinations if certain criteria are met. Section 15(j) of the CPSA allows the Commission through a rulemaking to specify for consumer products, or a class of consumer products, characteristics whose presence or absence shall be deemed a substantial product hazard under section 15(a)(2) of the CPSA. A "substantial product hazard" is a defined term in our statute. Failure to comply with a consumer product safety rule is one way a product can present a substantial product hazard under section

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15(a)(1) of the CPSA. A hazard addressed under section 15(j) is deemed to be “a product defect which (because of the pattern of defect, the number of defective product distributed in commerce, the severity of the risk, or otherwise) creates a substantial risk of injury to the public” under section 15(a)(2).

A rule under section 15(j) of the CPSA is not a consumer product safety rule. Further, the Commission is not defining mandatory requirements for seasonal and decorative lighting products that must be tested and certified to a regulation, as a rule issued under sections 7 and 9 of the CPSA would require. The Commission is not required to provide incident data for a rule under section 15(j) of the CPSA to demonstrate “gaps” in the UL standard, because the rule will not impose additional requirements on seasonal and decorative lighting products beyond the identified three readily observable characteristics embodied in UL 588. Instead, the Commission is determining that seasonal and decorative lighting products that do not conform to three elements of the voluntary standard, UL 588, have a product defect that presents a substantial risk of injury to the public. A substantial product hazard determination under section 15(a)(2) of the CPSA seeks to remove already-manufactured defective products from the stream of commerce.

The Commission can only determine that products that do not conform to a voluntary standard present a substantial product hazard under section 15(j) of the CPSA if four criteria are met:

- the characteristics involved must be “readily observable”;
- the characteristics must be addressed by a voluntary standard;
- the voluntary standard must be effective in reducing the risk of injury associated with the consumer products; and
- there must be substantial compliance with the voluntary standard.

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Essentially, when a voluntary standard is working effectively to reduce a risk of injury to the public, the Commission can rely on the voluntary standard and take enforcement action to remove products from the stream of commerce when products do not comply with that voluntary standard. The purpose of the NPR was to provide notice to the public that the Commission believes that UL 588 is an effective voluntary standard. When CPSC staff finds products in the stream of commerce that do not comply with one or more of three readily observable safety characteristics, which are defined in UL 588, the Commission believes that those products are defective and present a substantial risk of injury, fire and electrical shock.

Codifying that the absence of any of three safety characteristics for seasonal and decorative lighting products constitutes a substantial product hazard should streamline CPSC's enforcement efforts. Once the rule is final, CPSC will no longer need to rely on a staff preliminary determination of a substantial product hazard, and re-address this issue with each importer or manufacturer in each instance. Instead, CPSC can rely on the Commission's determination of a substantial product hazard for seasonal and decorative lighting products that are missing any of three readily observable characteristics, and then staff can proceed directly to negotiating a recall or seizure of the products without delay. Finally, when noncompliant lighting products are found at the ports, CPSC can rely on the rule to request that Customs and Border Protection ("CBP") seize the defective products through its authority under the Tariff Act. This streamlined process should reduce Commission staff and the monetary resources required to prevent defective products from entering the market.

Comment 2: Many commenters stated that existing standards, such as UL standards, are sufficient in "regulating" seasonal lights and that the agency did not provide a rational basis for selecting seasonal and decorative lighting products for regulation. Another commenter opposed

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codifying the UL standard, arguing that codifying the standard would “ossify” the voluntary standards process and make the UL standard “rigid,” more difficult to improve, and ultimately make the public less safe.

Response 2: This proceeding concerns a rule under section 15(j) of the CPSA and would not codify UL 588 or any other standard. Rather, under the rule, seasonal and decorative lighting products that do not have specified characteristics that conform to UL 588 would be considered to present a substantial product hazard. This means that such products could be stopped at the ports or otherwise prevented from distribution in the United States. The rule would not replace UL 588 or “ossify” the standard; rather, the rule would work in tandem with the UL standard to help provide safer products to consumers. If UL revises the referenced provisions of UL 588 in the future, the Commission can revise the rule to reference the updated version. Pages 62083 and 62084 of the NPR provided a rational basis for selecting seasonal and decorative lighting products. Lighting products that lack minimum safety characteristics pose a substantial risk of injury to consumers, and the Commission has the authority and obligation to remove such defective products from the stream of commerce.

Comment 3: One commenter stated that the NPR violated the Administrative Procedure Act (“APA”), and was “on its face arbitrary and capricious and without any reasonable foundation” because no rational basis was described in the proposed rule for a new federal regulation on seasonal and decorative lighting products. Many commenters indicated that they considered the rule unnecessary, when CPSC’s own data demonstrate that the UL standard appears to be effective at reducing the risk of injury associated with seasonal and decorative lighting products. Some commenters stated that the proposed rule does not describe a “substantial product hazard” that needs to be addressed by a regulation, noting that the UL

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standard has already addressed the hazards associated with seasonal and decorative lighting products.

Response 3: The commenters appear to misunderstand the nature and purpose of the NPR, as well as the Commission's authority to issue a rule under section 15(j) of the CPSA. The Commission disagrees that the NPR violated the APA and is arbitrary and capricious. The NPR provides adequate rationale for the proposed rule and meets the requirements of section 553(b) of the APA, which requires that a proposed rule:

- be published in the Federal Register;
- provide a statement of the time, place, and nature of public rule making proceedings;
- reference the legal authority under which the rule is proposed; and
- provide either the terms or substance of the proposed rule or a description of the subjects and issues involved.

As discussed in the NPR, seasonal and decorative lighting products have a history of causing deaths and injury. However, the Commission agrees with the commenters that UL 588 effectively addresses the risks caused by insufficient wire size, inadequate strain relief, and lack of overcurrent protection. UL 588 addresses these issues because the absence of these minimum safety characteristics poses a risk of injury, fire, and electric shock to consumers. The Commission's 15(j) rule recognizes that products that do not conform to UL 588 regarding minimum wire size, sufficient strain relief, and overcurrent protection, present a substantial product hazard.

A rule under section 15(j) of the CPSA is not a consumer product safety rule, but rather, is a Commission determination of a substantial product hazard. No injury data are required to

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find that a product presents a substantial product hazard under section 15(a)(2) of the CPSA. Instead, under section 15(a)(2), products are evaluated for defects that have the potential to cause a substantial risk of injury to the public. Even if the Commission has no reported injuries, the Commission could still find that a product has a defect which creates a substantial risk of injury to the public.

Comment 4: One commenter stated that CPSC misused the data cited in the proposed rule, making three fundamental errors:

- implicitly assuming that no older versions of lighting products manufactured before 2000 are in use, which CPSC allegedly uses to show that UL is only partially effective. The commenter asserts that lighting products are used for many years;
- failing to show any recent deaths or injuries since 2000 when UL was allegedly last updated; and
- failing to show that any deaths associated with lighting products were caused by product defects related to the three properties that the UL standards address (safe wire size, safety fuse, and strain protection).

The commenter stated that the proposed rule provides no rational basis for assuming that any residual hazard related to the UL standards exists.

Response 4: This commenter also seems to misunderstand the 15(j) rule. The data presented in the NPR are intended to demonstrate the effectiveness of the voluntary standard, UL 588, not that additional regulation is necessary because UL 588 is only partially effective.

Comment 5: One commenter requested confirmation that current certification markings from UL, Intertek Co (“ETL”), or the CSA Group, or products carrying a listing, are considered

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to be in conformance with these requirements and the proposed rule does not require any paperwork, such as certificates or permits.

Response 5: The Commission agrees that, unless an importer or retailer has reason to believe that UL, ETL, or CSA certification markings are counterfeit, such marks should indicate compliance with UL 588. Because a rule under section 15(j) of the CPSA is not a consumer product safety rule, a final rule will not impose additional paperwork such as certificates of compliance on importers or manufacturers.

Comment 6: One commenter questioned the definition of “readily observable,” and two commenters questioned whether all three readily observable characteristics need to be met.

Response 6: All three readily observable characteristics on a seasonal and decorative lighting product must be in conformance with UL 588. Under the rule, if one or more characteristics are missing, the product presents a substantial product hazard under section 15(a)(2) of the CPSA.

The Commission has not defined the term “readily observable,” preferring instead to evaluate the concept on a case-by-case basis. The proposed rule states:

The Commission did not define a “readily observable” characteristic in either [previous] rule. In the proposed drawstring rule (75 FR 27497, 27499, May 17, 2010), the Commission found that the requirements detailed in the relevant voluntary standard could be evaluated with “simple manipulations of the garment, simple measurements of portions of the garments, and unimpeded visual observation.” The Commission stated: “more complicated or difficult actions to determine the presence or absence of defined product characteristics also may be consistent with ‘readily observable.’” Finally, the

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Commission stated its intent to evaluate “readily observable” characteristics on a case-by-case basis.

75 FR at 27499. The Commission considers the three characteristics of seasonal and decorative lighting products described in the rule to be readily observable, consistent with the Commission’s previous statement.

Comment 7: One commenter questioned how CPSC will enforce the requirements for imported products that are proposed in the NPR.

Response 7: The Commission anticipates continuing the existing enforcement policy at ports of entry and at retail outlets, at least in the near future. Currently, CPSC identifies seasonal lighting products that lack certification marks or that appear to have irregular or counterfeit certification marks or that have other characteristics that might suggest noncompliance with applicable standards. After adoption of the rule, CPSC would evaluate such products to assess whether the products meet all three readily observable safety characteristics. If the products do not meet every one of the three readily observable safety characteristics, CPSC generally anticipates requesting that CBP detain the product if offered for importation. Additionally, CPSC practice is to inform the manufacturer or importer of the defect. Depending on the facts and circumstances, other legally-authorized measures may be taken.

Comment 8: One commenter asked whether the readily observable characteristics apply to both indoor and outdoor seasonal and decorative lighting products.

Response 8: The rule applies to both indoor and outdoor seasonal and decorative lighting products. The three readily observable characteristics are independent of the environment for which the products are rated.

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Comment 9: Some commenters generally opposed the NPR, stating reasons such as the “lie of global warming,” limiting electrical power consumption by consumers, or that CPSC should regulate other types of products.

Response 9: These comments are out of scope for this rulemaking.

B. Comments on Economic Issues

Comment 10: To demonstrate the potential safety benefits of the proposal, one commenter who supported the NPR suggested that the CPSC estimate the societal costs of fires and electrocutions associated with holiday and seasonal lights. Several commenters opposing the proposed rule stated that the likely safety benefits of the proposal would be small.

Response 10: The estimated numbers and societal costs of deaths, injuries, and property damage associated with seasonal and decorative lighting-related fires and electrocutions are very small, and generally, the numbers have declined to near zero in recent years, consistent with safety improvements made over time to the voluntary standard, UL 588. The rule is not designed to yield further safety benefits; rather, the rule would maintain the current high level of safety and help prevent distribution of nonconforming, seasonal and decorative lighting products that present a substantial product hazard.

Comment 11: Eleven consumer commenters opposing the proposed rule stated that the rule could impose compliance costs on industry, and that any such costs should be weighed against the minimal likely safety benefits of a rule. One commenter stated that the proposed rule failed to adequately address the full scope of the legal and financial impacts of the regulation. Four commenters suggested that cost increases would result in retail price increases. One commenter asked whether the CPSC could justify “millions of dollars” in costs.

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Response 11: The final rule does not impose any new design, manufacturing, testing, certification, reporting, labeling, or other cost burdens on industry. Rather than add “millions of dollars,” as the commenter posited, because the rule is predicated on an existing voluntary standard, the cost of the rule should be essentially zero. In the NPR, the Commission estimated that the level of conformance to the existing voluntary standard is well in excess of 90 percent. The Commission has identified very few nonconforming seasonal and decorative lighting products on the market, even among the lowest-priced products. Thus, no significant wholesale or retail price increases are likely to occur as a result of finalizing the rule. To the extent that any importers market nonconforming seasonal and decorative lighting products, these firms could incur minimal costs of up to a few cents per typical 50-light string to incorporate the correct wire size, proper strain relief, and overcurrent protection. Nonconforming goods, however, are already subject to CPSC enforcement action, including recall, seizure, or forfeiture upon importation. Thus, because no changes to products or importation practices will be needed, the rule will likely have little, if any, impact on costs or consumer choice.

As noted previously, the final rule will create efficiencies for the agency’s enforcement programs.

Comment 12: One commenter opposed to the NPR asserted that a CPSC rule would be duplicative of other existing regulations (presumably referring to the voluntary standard), thereby impacting costs and consumer choices.

Response 12: The final rule designates as a substantial product hazard any seasonal and decorative lighting products that do not conform to three elements of the existing voluntary standard, UL 588. This is consistent with current CPSC enforcement practice. The rule will impose no new requirements or cost burdens on industry. Similarly, because no products will

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have to be discontinued or withdrawn from the market, the final rule will not affect consumer choice.

Comment 13: One commenter opposed to the NPR questioned whether the proposed rule would maintain “fair and equitable market access for trade partners,” and whether the Commission had explored less restrictive regulatory alternatives.

Response 13: The final rule is not expected to deny or restrict market access in any way. All known products subject to a final rule are imported. Because virtually all such products are estimated to conform to the voluntary standard already, no new restrictions on importation into the United States will occur. Any noncomplying products will be subject to CPSC enforcement action. This has been the case in the past, and this will continue to be the CPSC’s practice even without the rule. No regulatory alternatives exist that would be less restrictive to industry. Under the rule, business practices will not have to change, and therefore, no restrictions on trade will result.

C. Technical Comments

Comment 14: One commenter asked the Commission to affirm that the proposed rule would not apply to the following:

- Battery-operated products
- Solar-powered products (either direct powered solar, or one with a storage system that is used when the sun is not out, such as a rechargeable battery to power the lights).
- Transformer or low-voltage power supplied products, such as adaptor-powered products that use a low voltage Class 2 power source or ITE power source, that are third party certified by an NRTL lab.

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- Flexible Lighting Products, as covered in the scope of UL 2388 (described as “Flexible Tube Lighting Strings” in the proposed rule).

Response 14: The Commission agrees with the commenter that the scope of the rule is not intended to include the types of products listed above. Section 1120.2(d) of the final rule already states that battery-operated products, products that operate from a transformer or low-voltage power supply; flexible tube lighting [clarified in response 15 below] intended for illumination; and portable electric lamps that are used to illuminate seasonal decorations are all outside the scope the rule. Products listed as out of scope are excluded because they are not subject to the same types of hazards as products within the scope of the rule; or, such products are not subject to UL 588, but rather, are subject to a different voluntary standard. The definition in section 1120.2(d) of the final rule has been clarified to state that solar-powered lights are not within the scope of the rule because solar-powered seasonal lights are not connected to a 120 volt branch circuit and do not present the same risk of injury of shock and fire. Thus, section 1120.2(d) of the final rule now lists “solar-powered products” as outside the scope of the final rule.

Comment 15: One commenter stated that the proposed rule should clarify which products are addressed by the term “flexible tube lighting strings” because CPSC could be excluding products that should fall within the scope of the rule, as they are addressed in UL 588. The commenter stated that use of the term “flexible tube lighting strings” could describe a UL 588-covered product connected directly across a 120V supply that uses a standard string of lights placed inside a rigid or flexible tube. The commenter suggested changing the term “flexible tube lighting strings” to “flexible lighting products,” in accordance with the scope of ANSI/UL 2388,

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Sections 1.1 and 1.2 and add “Flexible Lighting Products that conform with the ANSI/UL 2388 scope and definitions” to the “Rope, tube,” listing in- “out-of-scope” products.

Response 15: The Commission agrees that the term “flexible tube lighting strings” could be misconstrued to exempt some products that are covered by UL 588. Accordingly, the definition of “seasonal and decorative lighting products” in section 1120.2(d) of the final rule has been changed from the phrase “flexible tube lighting strings of lights intended for illumination” to the phrase “flexible lighting products incorporating non-replaceable series and series/parallel connected lamps enclosed within a flexible polymeric tube or extrusion” to describe out-of-scope lighting products. The Commission believes that this language, taken from UL 2388, the voluntary standard that applies to flexible lighting, will clarify that flexible lighting products subject to UL 2388 are not within the scope of the rule. This clarification is not intended to alter the scope of products covered by the rule; the revision merely clarifies that flexible tube lighting products covered by UL 2388 are not within the scope of the rule.

Comment 16: One commenter asked for confirmation that seasonal and decorative lighting products that are third party certified to ANSI/UL 588 by a Nationally Recognized Testing Laboratory (“NRTL”), such as UL, CSA, or ETL, “would be considered in compliance with this rule and would not require further review.” Additionally, the commenter requested confirmation that products such as a pre-lit artificial tree, or a pre-lit artificial wreath, as long as the decorative lighting (for example, a 120V cord connected incandescent or LED light string that is series or parallel connected and has push in, screw in or non-replaceable bulbs) is third party certified by an NRTL (such as UL, CSA, or ETL) to ANSI/UL 588, are considered to be in compliance with the proposed rule and would not require further review, even if the entire pre-lit artificial tree or wreath, as a whole with lights, is not UL, CSA, or ETL certified.

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Response 16: According to the Occupational Health and Safety Administration (“OSHA”), an NRTL is a private sector organization recognized by OSHA to perform required product certification to electrical standard requirements:

Each NRTL has a scope of test standards that they are recognized for, and each NRTL uses its own unique registered certification mark(s) to designate product conformance to the applicable product safety test standards. After certifying a product, the NRTL authorizes the manufacturer to apply a registered certification mark to the product. If the certification is done under the NRTL program, this mark signifies that the NRTL tested and certified the product, and that the product complies with the requirements of one or more appropriate product safety test standards. Users of the product can generally rely on the mark as evidence that the product complies with the applicable OSHA approval requirement(s) and is safe for use in the workplace.

OSHA’s website as of February 23, 2015 (<https://www.osha.gov/dts/otpca/nrtl/>).

The Commission interprets the comment to suggest that if a product has a mark indicating certification by an NRTL, CPSC should consider the product to be compliant with the applicable provisions of UL 588 and not conduct any further review of the product. The Commission believes that products that are legitimately listed to UL 588 by an NRTL are likely to be in compliance with UL 588 and not likely to present a substantial product hazard. However, because such marks are sometimes counterfeit, CPSC will use product labeling as but one factor in its decision process when determining which products to investigate for compliance.

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Regardless of labeling, CPSC may evaluate any electrical product for whether it poses a substantial product hazard. For example, CPSC staff's existing practice is to evaluate products at the ports to assess whether they present a substantial product hazard, and non-compliance to a relevant voluntary standard may provide evidence of a hazard. Even if electrical products are not subject to a rule under section 15(j) of the CPSA, CPSC field staff can collect samples of non-conforming products and send them to CPSC's lab, NPTEC, for further testing and evaluation.

Comment 17: The commenter asked why "unlighted ornaments that replace a push-in mini-bulb" are exempt from this rule, suggesting that these ornaments have the same fire and shock hazard as ornaments that are lighted, have the same strain relief and wire gauge requirements as lighted ornaments in UL 588, and should be treated as in-scope. He added that the only difference between lighted and unlighted ornaments of this type is that they are not required by UL 588 to have fusing.

Response 17: Table 1 in the NPR provided a non-exhaustive list of examples of lighting products that fall within, and outside of, the scope of the proposed rule. Ornaments that replace a push-in mini-bulb do not fall within the definition of products in Section 1120.2 (d) of the rule because these products do not have 120 volt input ratings. Additionally, in the experience of CPSC staff, ornaments, regardless of whether they are lighted or unlighted (including motorized and electronic items), have not presented the same hazard as products within the scope of the rule. In fact, CPSC has not found any such products in its archives to present a substantial product hazard.

Comment 18: One commenter pointed out a typographical error in section II of the NPR, item 2, on page 62085, "Sufficient Strain Relief," of the preamble. The commenter states the correct reference for the method of strain relief testing demonstrated in the NPR should be

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section SB15 instead of section SB16, which also changes the strain relief load cited in Table 2 from 24 lb. weight to a 20 lb. weight. The commenter also suggested changing the reference of section 79 to paragraph 79.2 in section II of the NPR, item 2, on page 62085 because of the method of testing demonstrated in the NPR. In addition, the commenter noted that the testing method in section II of the NPR, item 2, on page 62085, “Sufficient Strain Relief,” is vague and unrepeatable by specifying that wire is not allowed to “stretch,” as the wire will normally stretch in this test. UL 588 specifies that the wire not stretch more than 1/16” at the entry point of the wire to the lampholder, not that the wire below that point cannot stretch.

Response 18: The Commission agrees with the commenter with regard to the correct citation for strain relief requirements, and has revised the citation to UL 588 in section 1120.3(c)(2) regarding strain relief in the final rule to incorporate section SB15 of UL 588, instead of section SB16. We have also published a corrected version of the Table summarizing requirements from UL 588 in the preamble to the final rule, Table 1 in section I.D of this preamble. Table 1 updates the strain relief load from 24 lbs. to 20 lbs. and references SB15 instead of SB16. The Commission declines to revise the Table 1 to include paragraph 79.2, because the strain relief method called out in section 79 of UL 588 includes paragraph 79.2.

In the NPR, the Commission summarized the failure criteria for strain relief to demonstrate that strain relief is readily observable by hanging the appropriate weight and evaluating the results. However, the regulation text adopts the specific requirements for strain relief in UL 588. Section 1120.3(c)(2) specifies that sufficient strain relief requirements are according to UL 588 sections 15, 71, 79, and SB15 (changed from SB16 to SB 15). Although the cord is allowed to “stretch” within limits as permitted by UL 588 during the strain relief test, CPSC staff’s experience in observing non-conforming seasonal and decorative lighting products

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is that such non-complying products, in an overwhelming majority of observations, tend to be constructed in a way that they fail catastrophically—the conductors shred apart, with individual strands stretching to their breaking points.

Comment 19: One commenter stated that, in Section II of the NPR, the measurement of wire size (“AWG”) as shown in Picture 3 is not a very accurate method of measurement and is intended for solid core wire, not stranded as required to be used in decorative lighting strings covered by UL 588. The commenter is concerned that using a wire gauge with stranded wire can give false positives for undersized wire, or false negatives for properly sized wires, depending on twisting and other relevant factors. The commenter states that the ANSI UL wire standard uses a different method of determining wire size by measuring the circular mil area. While the wire gauge method may be sufficient to determine the initial need for further examination, the commenter states, it should not be used as the final determination for undersize wiring.

Response 19: The final rule incorporates by reference the minimum wire size requirements in section 6 of UL 588. Section 6 of UL 588 does not state a method for determining or measuring the wire size. Accordingly, the rule does not require any particular test; it requires compliance with section 6 of UL 588 with regard to minimum wire size. The NPR provided an example of one method for measuring wire size.

The purpose of providing a picture of measuring minimum wire size in the NPR was not to favor one method of measuring wire size over another, but to demonstrate that wire size is readily observable through a direct measurement of the wire. The Commission acknowledges that other methods of directly measuring wire size exist that also can be done quickly and easily. The Commission notes that CPSC staff’s experience in observing nonconforming seasonal and

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decorative lighting products demonstrates that such products typically fall short of conformance to wire size by a large margin, regardless of the method used to determine compliance with section 6 of UL 588.

III. Information Supporting Substantial Product Hazard Determination

A. Defined Characteristics Are Readily Observable and Addressed by UL 588

Sections 6, 7, 15, 71, 79, and SB15 of UL 588 set forth the requirements for the three readily observable characteristics in the final rule: minimum wire size, sufficient strain relief, and overcurrent protection. Table 1 in section I.D of this preamble summarizes the technical requirements for the three readily observable characteristics in UL 588. The final rule deems the absence of any one of these characteristics to be a substantial product hazard under section 15(a)(2) of the CPSA. The preamble to the NPR set forth information to support a finding that minimum wire size, sufficient strain relief, and overcurrent protection, are readily observable characteristics from UL 588. *See* 79 FR 62084-86. We summarize and update that information here.

1. Minimum Wire Size

Section 6 of UL 588 requires that series-connected lighting products have a minimum wire size of 20 or 22 AWG, depending on whether the lighting product has a load fitting, and whether the plug is polarized. Minimum wire size, as required in section 6 of UL 588, is a readily observable characteristic of seasonal and decorative lighting products that can be observed visually by taking a measurement of the product's bare wire. 79 FR 62084-85.

2. Sufficient Strain Relief

Sections 15, 71, 79, and SB15 of UL 588 set forth the requirements for sufficient strain relief in seasonal and decorative lighting products. Strain relief is observed in several locations:

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at the plugs and load fittings, as well as at the lampholders. Sufficient strain relief, as required in sections 15, 71, 79, and SB15 of UL 588, is a readily observable characteristic of seasonal and decorative lighting products that can be determined by suspending the applicable load from the plug, load fitting, or lampholder, and by observing for conformance with SB15 of UL 588. 79 FR at 62085-86.

3. Overcurrent Protection

Section 7 of UL 588 specifies overcurrent protection for every seasonal and decorative lighting product. Lighting products must contain at least one fuse if the plug is polarized (parallel-connected strings must have a polarized plug) or two fuses if the plug is not polarized. Overcurrent protection, as required in section 7 of UL 588, is a readily observable characteristic of seasonal and decorative lighting products that can be determined by a visual observation of whether the lighting product has a fuse holder containing the correct number of fuses. 79 FR at 62086.

B. Conformance to UL 588 Has Been Effective in Reducing the Risk of Injury

Conformance to sections 6, 7, 15, 71, 79, and SB15 of UL 588, as summarized in Table 1 in section I.D of this preamble, has been effective in reducing the risk of injury from shock and fire associated with below-minimum wire size, insufficient strain relief, and lack of overcurrent protection. CPSC's incident data demonstrate that conformance to UL 588 has coincided with, and may have contributed to, a decline in the risk of injury associated with seasonal and decorative lighting products.

The preamble to the NPR reviewed the reported death and nonfatal incident data from 1980 through 2013, which demonstrated a decline during that period. *See* 79 FR at 62086-87. On January 1, 1997, UL 588's requirements for overcurrent protection and minimum wire size

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took effect; and the current strain relief requirement has been in effect since 1994. Table 3 lists the incidents associated with seasonal and decorative lighting products for the periods 1980–1996 and 2000–2014. The years from 1997 to 1999 would have been transitional years, where older products in consumer homes were being replaced with light strings incorporating the January 1, 1997 changes (minimum wire size and overcurrent protection) in the UL standard. The average number of deaths per year and the average number of nonfatal incidents per year were higher before 1997, and the numbers dropped after 1999. *See* Tab E of Staff Final Rule Briefing Package.

Table 3. Incidents Associated with Seasonal and Decorative Lighting Products

Period	1980–1996	2000–2014
Deaths	202	45
Nonfatal Incidents	762	545
Average Deaths per year	11.9	3.0
Average Nonfatal Incidents per year	44.8	36.3

C. Lighting Products Substantially Comply with UL 588

The Commission has not articulated a bright-line rule for substantial compliance. Rather, in the rulemaking context, the Commission has stated that the determination of substantial compliance should be made on a case-by-case basis. Seasonal and decorative lighting products’ compliance with UL 588 is “substantial,” as that term is used in section 15(j) of the CPSA. The Commission estimates that a majority of seasonal and decorative lighting products, well in excess of 90 percent, sold for consumer use in the United States, likely conforms to UL 588. *See* 79 FR at 62088. Since issuing the NPR, CPSC has not received any information in the comments, or otherwise, that would change the estimated level of compliance with UL 588.

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IV. Description of the Rule

The rule regarding seasonal and decorative lighting products creates two new paragraphs in part 1120: one defines the products covered by the rule and the other states the characteristics that must be present for the products not to present a substantial product hazard.

Definition. Section 1120.2(d) defines a “seasonal and decorative lighting product” as portable, plug-connected, temporary-use lighting products and accessories that have a nominal 120 volt input voltage rating. Lighting products within the scope of the rule are factory-assembled with push-in, midget- or miniature-screw base lampholders connected in series or with candelabra- or intermediate-screw base lampholders connected in parallel, directly across the 120 volt input. Such lighting products include lighted decorative outfits, such as stars, wreathes, candles without shades, light sculptures, blow-molded (plastic) figures, and animated figures. Lighting products outside the scope of the rule include: battery-operated products; solar-powered products; products that operate from a transformer or low-voltage power supply; flexible lighting products incorporating non-replaceable series and series/parallel connected lamps enclosed within a flexible polymeric tube or extrusion; and portable electric lamps that are used to illuminate seasonal decorations.

This definition is adapted from descriptions of lighting products defined in section 1 of UL 588. Lighting products within the scope of the rule are typically used seasonally (temporarily) and provide only decorative lumination. The products typically are displayed for a relatively short period of time, and then the lighting products are removed and stored until needed again. Lighting products that are excluded from the scope of the rule are subject to different voluntary standards or do not present the same risk of injury.

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Substantial product hazard list. Section 1120.3(c) states that seasonal and decorative lighting products that do not conform to one or more of the following characteristics required in sections 6, 7, 15, 71, 79, and SB15 of UL 588 are deemed substantial product hazards under section 15(a)(2) of the CPSA:

- (1) minimum wire size requirements in section 6 of UL 588;
- (2) sufficient strain relief requirements in sections 15, 71, 79, and SB15 of UL 588; or
- (3) overcurrent protection requirements in section 7 of UL 588.

Standards incorporated by reference. Additionally, at the request of the Office of the Federal Register (“OFR”), the Commission is making a technical amendment to part 1120. This technical amendment adds a new section, 1120.4, listing all of the incorporations by reference (“IBR”) for products added to the substantial product hazard list. Thus, the IBR for hand-supported hair dryers and draw strings on children’s upper outerwear is moved from § 1120.3 to the new § 1120.4. No substantive change is being made to the rule regarding hand-supported hair dryers or drawstrings on children’s upper outerwear. The IBR for seasonal and decorative lighting products is also included in the new § 1120.4.

Incorporation by reference. The OFR has regulations concerning incorporation by reference. 1 CFR part 51. The OFR recently revised these regulations to require that, for a final rule, agencies must discuss, in the preamble of the rule, ways that the materials the agency incorporates by reference are reasonably available to interested persons and how interested parties can obtain the materials. In addition, the preamble of the rule must summarize the material. 1 CFR 51.5(b).

In accordance with the OFR’s requirements, this preamble summarizes the relevant provisions of UL 588. Table 1 in section I.D of this preamble summarizes the requirements of

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UL 588. Interested persons may purchase a copy of UL 588 from UL either through UL's website, www.UL.com, or by mail at the address provided in the rule. A copy of the standard also can be inspected at the CPSC's Office of the Secretary, U.S. Consumer Product Safety Commission, or at NARA, as provided in the rule.

V. Commission Determination that Seasonal and Decorative Lighting Products that Lack Any One of Three Readily Observable Characteristics Present a Substantial Product Hazard

To place a product (or class of products) on the list of substantial product hazards pursuant to section 15(j) of the CPSA, the Commission must determine that: (1) the characteristics involved are "readily observable"; (2) the characteristics are addressed by a voluntary standard; (3) the voluntary standard is effective in reducing the risk of injury associated with the consumer products; and (4) products are in substantial compliance with the voluntary standard. Accordingly, based on the information provided in this preamble, for seasonal and decorative lighting products, the Commission determines that:

- minimum wire size, sufficient strain relief, and overcurrent protection are all readily observable characteristics of seasonal and decorative lighting products. Measurement of minimum wire size and sufficient strain relief can be visually observed, and the presence of overcurrent protection can be visually observed;
- minimum wire size, sufficient strain relief, and overcurrent protection in seasonal and decorative lighting products are addressed by a voluntary standard, UL 588.

Minimum wire size is addressed in section 6 of UL 588. Sufficient strain relief is addressed in sections 15, 71, 79, and SB15 of UL 588. Overcurrent protection is addressed in section 7 of UL 588;

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- conformance to UL 588 has been effective in reducing the risk of injury from shock and fire associated with seasonal and decorative lighting products. From 1980 to 1996, the reported average number of deaths per year was 11.9, and the reported average number of nonfatal incidents per year was 44.8. After changes to the UL standard, from 2000 to 2014, the reported average number of deaths dropped to 3.0, and the reported average number of nonfatal incidents per year dropped to 36.3. Although decreasing numbers of death and injury may be a result of several factors, conformance with UL 588 coincided with, and likely contributed to, the decline in deaths and injuries associated with seasonal and decorative lighting products; and
- seasonal and decorative lighting products sold in the United States substantially comply with UL 588. We estimate that more than 90 percent of seasonal and decorative lighting products for sale in the United States comply with the minimum wire size, sufficient strain relief, and overcurrent protection provisions in UL 588.

VI. Effect of the 15(j) Rule

Section 15(j) of the CPSA allows the Commission to issue a rule specifying that a consumer product or class of consumer products has characteristics whose presence or absence creates a substantial product hazard. A rule under section 15(j) of the CPSA is not a consumer product safety rule, and thus, does not create a mandatory standard that triggers testing or certification requirements under section 14(a) of the CPSA.

Although a rule issued under section 15(j) of the CPSA is not a consumer product safety rule, placing a consumer product on the substantial product hazard list in 16 CFR part 1120 has some ramifications. A product that is or has a substantial product hazard is subject to the

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reporting requirements of section 15(b) of the CPSA, 15 U.S.C. 2064(b). A manufacturer, importer, distributor, or retailer that fails to report a substantial product hazard to the Commission is subject to civil penalties under section 20 of the CPSA, 15 U.S.C. 2069, and possibly to criminal penalties under section 21 of the CPSA, 15 U.S.C. 2070.

A product that is or contains a substantial product hazard is also subject to corrective action under sections 15(c) and (d) of the CPSA, 15 U.S.C. 2064(c) and (d). Thus, a rule issued under section 15(j) for seasonal and decorative lighting allows the Commission to order that a manufacturer, importer, distributor, or retailer of lighting products that do not contain one or more of the three readily observable characteristics to offer to repair or replace the product, or to refund the purchase price to the consumer.

A product that is offered for import into the United States and is or contains a substantial product hazard shall be refused admission into the United States under section 17(a) of the CPSA, 15 U.S.C. 2066(a). Additionally, CBP has the authority to seize certain products offered for import under the Tariff Act of 1930 (19 U.S.C. 1595a) (“Tariff Act”), and to assess civil penalties that CBP, by law, is authorized to impose. Section 1595a(c)(2)(A) of the Tariff Act states that CBP may seize merchandise, and such merchandise may be forfeited if: “its importation or entry is subject to any restriction or prohibition which is imposed by law relating to health, safety, or conservation and the merchandise is not in compliance with the applicable rule, regulation, or statute.”

VII. Regulatory Flexibility Act Analysis

The Regulatory Flexibility Act (“RFA”) requires that proposed and final rules be reviewed for the potential economic impact on small entities, including small businesses. 5 U.S.C. 601-612. In the preamble to the proposed rule (79 FR at 62089) the Commission stated

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that the rule will not have a significant impact on a substantial number of small entities. This statement was based on CPSC staff's review of the roughly 500 companies that import seasonal and decorative lighting products into the United States, finding that a very high percentage, probably in excess of 90 percent of lighting products sold in the United States, already conform to UL 588. Although the Commission received comments stating that a rule would increase costs for manufacturers and consumers, none of the commenters included any data to support their contention. CPSC has not found any data that would alter the analysis provided in the NPR. Accordingly, the Commission finds that the rule will not have a significant impact on a substantial number of small businesses.

VIII. Environmental Considerations

Generally, the Commission's regulations are considered to have little or no potential for affecting the human environment, and environmental assessments and impact statements are not usually required. *See* 16 CFR 1021.5(a). The final rule to deem seasonal and decorative lighting products that do not contain one or more of three readily observable characteristics to be a substantial product hazard will not have an adverse impact on the environment and is considered to fall within the "categorical exclusion" for the purposes of the National Environmental Policy Act. 16 CFR 1021.5(c).

IX. Paperwork Reduction Act

The rule does not require any stakeholder to create, maintain, or disclose information. Thus, no paperwork burden is associated with this final rule, and the Paperwork Reduction Act of 1995 (44 U.S.C. 3501–3520) does not apply.

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X. Preemption

A rule under section 15(j) of the CPSA does not establish a consumer product safety rule. Accordingly, the preemption provisions in section 26(a) of the CPSA, 15 U.S.C. 2075(a), do not apply to this rule.

XI. Effective Date

The preamble to the proposed rule stated that a final rule deeming that any seasonal and decorative lighting product that does not conform to sections 6, 7, 15, 71, 79, and SB15 of UL 588 with regard to minimum wire size, sufficient strain relief, and overcurrent protection is a substantial product hazard would take effect 30 days after publication of the rule in the *Federal Register*. We received no comments on the effective date. Accordingly, the final rule will apply to seasonal and decorative lighting products imported or introduced into commerce on **[insert date that is 30 days after publication in the *Federal Register*]**.

List of Subjects in 16 CFR Part 1120

Administrative practice and procedure, Clothing, Consumer protection, Household appliances, Lighting, Infants and children, Imports, Incorporation by reference.

For the reasons stated above, and under the authority of 15 U.S.C. 2064(j), 5 U.S.C. 553, and section 3 of Public Law 110-314, 122 Stat. 3016 (August 14, 2008), the Consumer Product Safety Commission amends 16 CFR part 1120 to read as follows:

PART 1120 – SUBSTANTIAL PRODUCT HAZARD LIST

1. The authority citation for part 1120 continues to read as follows:

Authority: 15 U.S.C. 2064(j).

2. In § 1120.2, add paragraph (d) to read as follows:

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§ 1120.2 Definitions.

* * * * *

(d) *Seasonal and decorative lighting product* means portable, plug-connected, temporary-use lighting products and accessories that have a nominal 120 volt input voltage rating. Lighting products within the scope of the rule are factory-assembled with push-in, midget- or miniature-screw base lampholders connected in series or with candelabra- or intermediate-screw base lampholders connected in parallel, directly across the 120 volt input. Such lighting products include lighted decorative outfits, such as stars, wreathes, candles without shades, light sculptures, blow-molded (plastic) figures, and animated figures. Lighting products outside the scope of the rule include: battery-operated products; solar-powered products; products that operate from a transformer or low-voltage power supply; flexible lighting products incorporating non-replaceable series and series/parallel connected lamps enclosed within a flexible polymeric tube or extrusion; and portable electric lamps that are used to illuminate seasonal decorations.

3. In § 1120.3, republish the text of the introductory paragraph, revise paragraphs (a) and (b)(1), and add paragraph (c), to read as follows:

§ 1120.3 Products deemed to be substantial product hazards.

The following products or class of products shall be deemed to be substantial product hazards under section 15(a)(2) of the CPSA:

(a) Hand-supported hair dryers that do not provide integral immersion protection in compliance with the requirements of section 5 of UL 859, or section 6 of UL 1727 (incorporated by reference, see § 1120.4).

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(b)(1) Children's upper outerwear in sizes 2T to 16 or the equivalent, and having one or more drawstrings, that is subject to, but not in conformance with, the requirements of ASTM F 1816-97 (incorporated by reference, see § 1120.4).

* * * * *

(c) Seasonal and decorative lighting products that lack one or more of the following characteristics in conformance with requirements in sections 6, 7, 15, 71, 79, and SB15 of UL 588 (incorporated by reference, see § 1120.4):

- (1) Minimum wire size requirements in section 6 of UL 588;
- (2) Sufficient strain relief requirements in sections 15, 71, 79, and SB15 of UL 588; or
- (3) Overcurrent protection requirements in section 7 of UL 588.

4. Add § 1120.4 to read as follows:

§ 1120.4 Standards incorporated by reference.

(a) The standards required in this part are incorporated by reference (“IBR”) into this section with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. You may inspect all approved material at the Office of the Secretary, U.S. Consumer Product Safety Commission, Room 820, 4330 East West Highway, Bethesda, MD 20814, telephone 301-504-7923, or at the National Archives and Records Administration (“NARA”). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

(b) ASTM International, 100 Barr Harbor Drive, PO Box C700, West Conshohocken, PA 19428-2959 USA, telephone: 610-832-9585; <http://www2.astm.org/>.

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(1) ASTM F 1816-97, *Standard Safety Specification for Drawstrings on Children's Upper Outerwear*, approved June 10, 1997, published August 1998 (“ASTM F 1816-97”), IBR approved for § 1120.3(b).

(2) [Reserved]

(c) Underwriters Laboratories, Inc. (“UL”), 333 Pfingsten Road, Northbrook, IL 60062 or through UL’s website: www.UL.com.

(1) UL 588, *Standard for Safety for Seasonal and Holiday Decorative Products*, 18th Edition, approved August 21, 2000 (“UL 588”), IBR approved for § 1120.3(c).

(2) UL 859, *Standard for Safety for Household Electric Personal Grooming Appliances*, 10th Edition, approved August 30, 2002, and revised through June 3, 2010 (“UL 859”), IBR approved for § 1120.3(a).

(3) UL 1727, *Standard for Safety for Commercial Electric Personal Grooming Appliances*, 4th Edition, approved March 25, 1999, and revised through June 25, 2010 (“UL 1727”), IBR approved for § 1120.3(a).

Dated: April __, 2015.

Alberta E. Mills, Acting Secretary
Consumer Product Safety Commission.



Staff Briefing Package

Final Rule to Amend 16 C.F.R. Part 1120
To Add Seasonal and Decorative Lighting Products
April 22, 2015

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Briefing Memorandum: Seasonal and Decorative Lighting Products: Staff's Recommended Final Rule Under Section 15(j) of the Consumer Product Safety Act



UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
BETHESDA, MD 20814

This document has been electronically
approved and signed.

MEMORANDUM

Date: April 22, 2015

TO : The Commission
Alberta E. Mills, Acting Secretary

THROUGH: Stephanie Tsacoumis, General Counsel
Patricia H. Adkins, Executive Director
Robert J. Howell, Deputy Executive Director for Safety Operations

FROM : George A. Borlase, Ph.D., P.E.
Assistant Executive Director
Office of Hazard Identification and Reduction

Arthur S. Lee, Project Manager
Directorate for Engineering Sciences
Office of Hazard Identification and Reduction

SUBJECT : Seasonal and Decorative Lighting Products: Staff's Recommended Final Rule
Under Section 15(j) of the Consumer Product Safety Act

On October 16, 2014, the U.S. Consumer Product Safety Commission ("CPSC," "Commission") published a notice of proposed rulemaking ("NPR") in the *Federal Register*¹ (79 Fed. Reg. 62082) to amend the substantial product hazard ("SPH") list codified at 16 C.F.R. part 1120 ("part 1120"). The NPR proposed to add seasonal and decorative lighting products that lack one or more of three readily observable characteristics (minimum wire size, sufficient strain relief, and overcurrent protection) to the SPH list. These three readily observable characteristics are embodied in an existing voluntary standard, UL 588, *Standard for Safety for Seasonal and Holiday Decorative Products*, 18th Edition, approved on August 21, 2000 ("UL 588").² Under the NPR, seasonal and decorative lighting products that lack minimum wire size, sufficient strain relief, or overcurrent protection in conformance with the requirements of UL 588 would be deemed to present an SPH.

The Commission received 62 comments on the NPR. In this memorandum, staff summarizes comments received on the NPR, provides updated incident, recall, and import stoppage data; updates information on conformance to the voluntary standard; and informs the Commission on the expected impact of a final rule on small businesses. After reviewing the comments, CPSC staff recommends that the Commission publish the draft final rule to amend part 1120 to include seasonal and decorative lighting products, with three minor clarifications, which are described in Section II.

¹ <http://www.gpo.gov/fdsys/pkg/FR-2014-10-16/pdf/2014-24378.pdf>

² The UL mark and logo are trademarks of Underwriters Laboratories, Inc.

I. Introduction

The Consumer Product Safety Improvement Act of 2008 (“CPSIA”)³ expanded section 15 of the Consumer Product Safety Act (“CPSA”), by creating a new subsection (j) that allows the Commission to specify by rule for a consumer product, or class of consumer products, characteristics whose existence or absence the Commission deems present a substantial product hazard, as defined in section 15(a)(2) of the CPSA. To be an SPH:

- the characteristics must be “readily observable”;
- the characteristics must be addressed by a voluntary standard;
- the voluntary standard must be effective at reducing the risk of injury; and
- there must be substantial compliance with the voluntary standard.

The NPR proposed to amend the SPH list in part 1120 to add three readily observable characteristics of seasonal and decorative lighting products, as addressed in UL 588: (1) minimum wire size; (2) sufficient strain relief; and (3) overcurrent protection. If the Commission issues the recommended draft final rule, seasonal and decorative lighting products that lack one or more of these characteristics would be deemed to create an SPH under section 15(a)(2) of the CPSA because such products pose a risk of electrical shock or fire. In the NPR, the Commission determined preliminarily that:

- minimum wire size, sufficient strain relief, and overcurrent protection are all readily observable characteristics of seasonal and decorative lighting products;
- these three readily observable characteristics are addressed by a voluntary standard, UL 588;
- conformance to UL 588 has been effective in reducing the risk of injury from shock and fire associated with these readily observable characteristics; and
- seasonal and decorative lighting products sold in the United States substantially comply with UL 588.

After consideration of the public comments, described below, staff recommends that the Commission issue a final rule to amend 16 C.F.R. part 1120 to include seasonal and decorative lighting products.

II. Public Comments

The CPSC received 62 comments and questions in response to the NPR. Substantive comments from several manufacturers expressed general support for the proposed rule, and the remaining consumer commenters were generally opposed to the NPR. Commenters who opposed the rule often appeared to misunderstand the nature of the rulemaking at issue, the Commission’s authority to issue such a rule, and the effect of such a rule on industry and consumers.

³ Pub. L. No. 110-314.

Summaries of the comments and staff's responses are provided in the following tabs:

- Tab A – general issues,
- Tab B – economic issues, and
- Tab C – technical issues.

III. Staff's Recommended Changes to the NPR

Staff does not recommend changes to the final rule based on general comments or comments related to economic issues. Based on technical comments received, CPSC staff recommends three clarifications, as described below. The draft final rule incorporates these recommended clarifications.

First, in the definition of “seasonal and decorative lighting product” in section 1120.2(d), staff recommends modifying the phrase “flexible tube lighting strings of lights intended for illumination,” which was used in the NPR to describe a type of product that falls outside the scope of the proposed rule. Staff recommends replacing the phrase in the final rule with “flexible lighting products incorporating non-replaceable series and series/parallel connected lamps enclosed within a flexible polymeric tube or extrusion.” A commenter suggested this revision to clarify the types of flexible tube lighting products that are not covered by the rule. Staff believes that the revised language clarifies what types of tube lighting are outside the scope of the rulemaking because such tube lighting is not covered by UL 588 but is covered by another UL standard, UL 2388, *Flexible Lighting Products*. This clarification is not intended to alter the scope of products covered by the rule; the revision merely clarifies that flexible lighting products covered by UL 2388 are not within the scope of the rule.

Second, a commenter requested that the Commission clarify whether solar-powered lighting products are within the scope of the rule. Staff recommends clarifying the definition of “seasonal and decorative lighting product” in section 1120.2(d) to state that solar-powered lights are not within the scope of the final rule because solar-powered seasonal lights are not connected to a 120-volt branch circuit and do not present the same risk of injury due to shock and fire. Section 1120.2(d) of the draft final rule now lists “solar-powered products” as outside the scope of the rule.

Third, a commenter noted an error in the NPR in the citation of UL 588 for the strain relief weight load requirements. CPSC staff recommends that section 1120.3(c)(2) regarding strain relief be corrected to cite section SB15 of UL 588, instead of section SB16. In addition to revising the text of the rule, staff recommends publishing a revised Table 2 in the preamble of the final rule, as shown below, to reflect the change in the strain relief load from 24 lbs. to 20 lbs. Table 2 provides a helpful summary of the relevant sections of UL 588.

Revised TABLE 2—READILY OBSERVABLE CHARACTERISTICS FOR SEASONAL AND DECORATIVE LIGHTING PRODUCTS

Seasonal and decorative lighting products	Minimum wire size (AWG) <i>UL 588 Section 6</i>	Readily observable characteristics		Overcurrent protection qty. <i>UL 588 Section 7</i>
		Sufficient strain relief (load weight)		
		Plugs/load fittings <i>UL 588 Sections 15 and 71</i>	Lampholders <i>UL 588 Sections 79 and SB16 SB15</i>	
Series-connected lighting product:				
With Load Fitting	20 (Polarized Plug)	20 lbs. (smaller than 18	24 lbs <u>20lbs</u>	1
	22 (Non-Polarized Plug)	AWG).	8 lbs	2
Without Load Fitting	22 (Polarized Plug)		8 lbs	1
	22 (Non-Polarized Plug)		8 lbs	2
Parallel-connected lighting product:				
With or Without Load Fitting	20 (XTW)	20 lbs. (20 AWG)	24 lbs <u>20lbs</u>	1
	18 (all others)	30 lbs. (18 AWG)		
	All Polarized Plugs			

IV. Recalls and Stoppages Update

From 1974 to August 2014, CPSC staff obtained 47 voluntary recalls of seasonal and decorative lighting products, involving a total of about 3.6 million units. In addition to product recalls, from 2005 through August 2014, CPSC staff identified 127 shipments at import, involving a total of approximately 200,000 lighting units, where seasonal and decorative lighting products may not have complied with UL 588. Since the time of the NPR’s publication (from September 2014 to February 2015), CPSC staff obtained no voluntary recalls of seasonal and decorative lighting products and identified 11 shipments at import, involving a total of nearly 37,000 lighting units, where the seasonal and decorative lighting products may not comply with UL 588. The memorandum from the Office of Compliance and Field Operations updating this information can be found in Tab D, titled, Number of Recalls and Import Stoppages of Seasonal and Decorative Lighting Products Since August 2014.

V. Incident Reports Update

For the NPR, CPSC staff conducted a search for reported incidents that occurred between 1980 and May 2014 that involved seasonal and decorative lighting products. CPSC staff has updated this data and found that a total of 133 fatal incidents causing 258 deaths and 1,405 nonfatal reported incidents involving seasonal and decorative lighting products were in-scope, and occurred between 1980 and 2014.⁴ For the final rule, staff searched the Injury or Potential Injury Database (“IPII”), National Electronic Injury Surveillance System (“NEISS”), and the Death Certificate Database (“DTHS”) for in-scope incidents reported from January 2014 through March 2015. CPSC staff found an additional 25 in-scope incidents that occurred in 2014, and staff found another seven incidents that occurred in 2015. All of the 25 incidents in 2014 were nonfatal incidents. One of the seven incidents in 2015 was a fatal incident that caused one death.

⁴ Staff has updated the incident data from 1980 to 2013 to include retailer reports.

Although these incident reports do not provide a basis for estimates, CPSC Epidemiology Hazard Analysis staff (“EPHA”) has determined that the number of reported fatal and nonfatal seasonal and decorative lighting product fire and shock incidents (and the number of resulting deaths) reported to CPSC demonstrated a decline over the last 35 years. The memorandum from the Directorate for Epidemiology updating this information can be found in Tab E, titled, Seasonal and Decorative Lighting Products: Update on Reported Fire or Shock Incidents from 1980 through March 2015.

VI. Substantial Compliance Update

Based on CPSC staff’s continuing review of market information and compliance activity, staff estimates that a substantial majority of seasonal and decorative lighting products sold for consumer use in the United States conform to UL 588. Staff’s 2014 report in the NPR briefing package estimated that the conformance level likely is well in excess of 90 percent of units sold. Staff has received no new information that would change this estimate.

VII. Small Business Considerations Update

In accordance with provisions of the Regulatory Flexibility Act, the Commission stated in the NPR that the proposed rule would not likely have a significant impact on a substantial number of small entities, including small businesses. Some public comments on the NPR asserted that costs to industry, or other competitive effects, may result from the proposed rule; however, these commenters provided no data to support such claims and appear to have misunderstood the rule, which codifies existing industry and CPSC practices. Furthermore, CPSC staff’s continuing review uncovered no additional information suggesting that significant costs or other impacts, including impacts on small businesses, would result if the Commission issued the rule on a final basis.

VIII. Effective Date of the Final Rule

Staff recommends that a final rule listing as SPHs, seasonal and decorative lighting products that do not contain one or more readily observable characteristic (minimum wire size, sufficient strain relief, and overcurrent protection), become effective 30 days after publication of a final rule in the *Federal Register*. A 30-day effective date is appropriate because seasonal and decorative lighting products are already in substantial conformance with UL 588, and the readily observable characteristics in UL 588 that are being incorporated by reference into the draft final rule are well known and have been in effect since the 1990s. Additionally, the Office of Compliance sent a letter dated July 14, 2014, to manufacturers, importers, and retailers of seasonal and decorative lighting products, informing them that the Office of Compliance considers products that do not conform to UL 588, regarding minimum wire size, sufficient strain relief, and overcurrent protection, to be defective and present an SPH. Accordingly, CPSC staff recommends that a final rule become effective 30 days after publication in the *Federal Register*.

IX. Compliance with Section 15(j) of the CPSA

All four conditions required in section 15(j) of the CPSA for seasonal and decorative lighting products to be added to the SPH list in part 1120 have been fulfilled:

- the presence or absence of minimum wire size, sufficient strain relief, and overcurrent protection are readily observable;
- requirements for minimum wire size, sufficient strain relief, and overcurrent protection have been addressed by a voluntary standard, UL 588;
- UL 588 has been effective in reducing incidents attributed to seasonal and decorative lighting products; and
- there is substantial compliance in the marketplace with UL 588.

X. Staff Recommendation

CPSC staff recommends that the Commission publish the draft final rule (which includes three clarifying changes to the NPR), as drafted by the Office of the General Counsel. CPSC staff also recommends an effective date of 30 days after publication of the final rule in the *Federal Register*.

**TAB A: Staff's Responses to General Comments on the
Proposed Rule to Add Seasonal and Decorative Lighting
Products to the Substantial Product Hazard List in 16 C.F.R.
Part 1120**

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UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
BETHESDA, MD 20814

MEMORANDUM

Date: April 6, 2015

TO : George A. Borlase, Ph.D., P.E.
Assistant Executive Director
Office of Hazard Identification and Reduction

THROUGH: Joel Recht, Associate Executive Director, Directorate for Engineering Sciences

FROM : Arthur S. Lee, Project Manager, Directorate for Engineering Sciences

SUBJECT : Staff's Responses to General Comments on the Proposed Rule to Add Seasonal and Decorative Lighting Products to the Substantial Product Hazard List in 16 C.F.R. Part 1120

I. Introduction

On October 16, 2014, the U.S. Consumer Product Safety Commission ("CPSC," "Commission") published a notice of proposed rulemaking ("NPR") in the *Federal Register*¹ (79 *Fed. Reg.* 62082) to amend the substantial product hazard ("SPH") list codified at 16 C.F.R. part 1120 ("part 1120"). The NPR proposed to add seasonal and decorative lighting products that lack one or more of three readily observable safety characteristics (minimum wire size, sufficient strain relief, and overcurrent protection) to the SPH list. These readily observable characteristics are embodied in an existing voluntary standard, UL 588, *Standard for Safety for Seasonal and Holiday Decorative Products*, 18th Edition, approved on August 21, 2000 ("UL 588").²

The Commission received 62 comments and questions on the NPR. In this memorandum, CPSC staff summarizes general comments received in response to the NPR and provides staff's responses. Most of these general comments opposed the rule or criticized the Commission's rationale for rulemaking. Many of these commenters appear to have misunderstood, or were misinformed, about the nature and purpose of the rulemaking and the Commission's authority to issue a rule under section 15(j) of the Consumer Product Safety Act ("CPSA").

II. Staff's Responses to General Comments

Comment 1: Many commenters argued that the proposed rule represents government waste, government overreach, or would result in a "waste of money" because the incident data do not demonstrate a relationship between the incident data and gaps in the UL standard.

¹ <http://www.gpo.gov/fdsys/pkg/FR-2014-10-16/pdf/2014-24378.pdf>

² The UL mark and logo are trademarks of Underwriters Laboratories, Inc.

Response 1: Staff disagrees with these commenters. The CPSC's mission is to protect consumers from unreasonable risks of injury or death from consumer products. The rule would further this mission by allowing staff to remove, more effectively, seasonal and decorative lighting products from commerce, if these products present a risk of fire or electrical shock to consumers. The rule will not result in waste, nor will the rule increase costs. In fact, the rule should decrease CPSC's costs associated with an existing practice of determining that seasonal and decorative lighting products that do not conform to UL 588 present a defect that rises to an SPH.

Currently, when CPSC staff encounters seasonal and decorative lighting products that do not appear to meet the requirements of UL 588, field and import staff must collect samples of the products and send them to CPSC's National Product Testing and Evaluation Center ("NPTEC") for further testing. CPSC engineers evaluate and test the samples and provide their assessment to Compliance staff. Compliance staff, relying on CPSC technical staff's assessment, makes a preliminary determination of whether the product presents an SPH. If Compliance staff makes a preliminary determination of an SPH, then a letter is sent informing the manufacturer or importer of the defective products. Compliance staff then negotiates seizure, destruction, and/or a recall with the firm. Firms may dispute CPSC staff's preliminary determination of an SPH for failure to conform to UL 588, which can add delay in removing defective products from the market and increase CPSC staff's costs related to supporting an SPH finding.

When nonconforming seasonal and decorative lighting products are identified, CPSC staff must address, with each manufacturer or importer, the missing safety requirements from UL 588 that were determined to create an SPH. This process can be time-consuming and resource intensive. Congress has provided the Commission with the ability to streamline the administrative process of SPH determinations, if certain criteria are met. Section 15(j) of the CPSA allows the Commission to specify, through a rulemaking, for consumer products, or a class of consumer products, characteristics whose presence or absence shall be deemed an SPH under section 15(a)(2) of the CPSA. A "substantial product hazard" is a defined term in our statute. Failure to comply with a consumer product safety rule is one way that a product can present an SPH under section 15(a)(1) of the CPSA. However, in this instance, the CPSA states that the hazard addressed under section 15(j) falls under section 15(a)(2), noting that an SPH is "a product defect which (because of the pattern of defect, the number of defective product distributed in commerce, the severity of the risk, or otherwise) creates a substantial risk of injury to the public."

A rule under section 15(j) of the CPSA is not a consumer product safety rule. The Commission is not defining mandatory requirements for seasonal and decorative lighting products that must be tested and certified to a regulation, as would be required for a rule issued under sections 7 and 9 of the CPSA. The Commission is not required to provide incident data for a rule under section 15(j) of the CPSA to demonstrate "gaps" in the UL standard, because the draft final rule will not impose additional requirements on seasonal and decorative lighting products beyond the identified three readily observable characteristics embodied in UL 588. Instead, the Commission is determining that seasonal and decorative lighting products that do not conform to three elements of the voluntary standard, UL 588, presents a substantial risk of injury

to the public. An SPH determination under section 15(a)(2) of the CPSA seeks to remove already manufactured defective products from the stream of commerce.

The Commission can only determine that products that do not conform to a voluntary standard present a SPH under section 15(j) of the CPSA if four criteria are met:

- the characteristics involved must be “readily observable”;
- the characteristics must be addressed by a voluntary standard;
- the voluntary standard must be effective in reducing the risk of injury associated with the consumer products; and
- there must be substantial compliance with the voluntary standard.

Essentially, when a voluntary standard is working effectively to reduce a risk of injury to the public, the Commission can rely on the voluntary standard and take enforcement action to remove products from the stream of commerce that do not comply with that voluntary standard. The purpose of the NPR was to provide notice to the public that the Commission believes that UL 588 is an effective voluntary standard. When CPSC staff finds products in the stream of commerce that do not comply with three readily observable safety characteristics that are defined in UL 588, the Commission believes that those products present a substantial risk of injury, fire, and electrical shock.

Codifying a rule that specifies that the absence of any of three safety characteristics for seasonal and decorative lighting products constitutes an SPH should streamline CPSC staff’s enforcement efforts. Once the rule is final, CPSC staff will no longer need to rely on a staff preliminary determination of an SPH and have to renegotiate this issue with each importer or manufacturer. Instead, CPSC staff can rely on the Commission’s determination of an SPH for seasonal and decorative lighting products that are missing any of the three readily observable characteristics, and thereafter, staff can proceed directly to negotiate a recall or seizure of such products without delay. Finally, when noncompliant lighting products are found at the ports, CPSC can rely on the rule to request that Customs and Border Protection (“CBP”) seize such products through its authority under the Tariff Act. This streamlined process should reduce the number of Commission staff and monetary resources required to prevent defective products from entering the market.

Comment 2: Many commenters stated that existing standards, such as UL standards, are sufficient in “regulating” seasonal lights and that CPSC did not provide a rational basis for selecting seasonal and decorative lighting products for regulation. Another commenter opposed codifying the UL standard, arguing that codification of the UL standard would “ossify” the voluntary standards process and make the UL standard “rigid,” more difficult to improve, and ultimately make the public less safe.

Response 2: This proceeding concerns a rule under section 15(j) of the CPSA and would not codify UL 588 or any other standard. Rather, under the rule, seasonal and decorative lighting products that do not have specified characteristics that conform to UL 588 would be considered to present an SPH. This means that these products could be stopped at the ports or otherwise prevented from distribution in the United States. The rule would not replace UL 588 or “ossify”

the standard; rather, the rule would work in tandem with the UL standard to help provide safer products to consumers. If UL revises the referenced provisions of UL 588 in the future, the Commission can revise the rule to reference the updated version. Pages 62083 and 62084 of the NPR provided a rational basis for selecting seasonal and decorative lighting products. Lighting products that lack minimum safety characteristics pose a substantial risk of injury to consumers, and the Commission has the authority and obligation to remove these defective products from the stream of commerce.

Comment 3: One commenter stated that the NPR violated the Administrative Procedure Act (“APA”), and was “on its face arbitrary and capricious and without any reasonable foundation” because no rational basis was described in the proposed rule for a new federal regulation on seasonal and decorative lighting products. Many commenters indicated that they considered the rule unnecessary, when CPSC’s data demonstrate that the UL standard appears to be effective at reducing the risk of injury associated with seasonal and decorative lighting products. Some commenters stated that the proposed rule does not describe a “substantial product hazard” that needs to be solved by a regulation because the UL standard has already addressed the hazards associated with seasonal and decorative lighting products.

Response 3: The commenters appear to misunderstand the nature and purpose of the NPR, as well as the Commission’s authority to issue a rule under section 15(j) of the CPSA. CPSC staff disagrees that the NPR violated the APA or is arbitrary and capricious. The NPR provides adequate rationale for the proposed rule and meets the requirements of section 553(b) of the APA, which requires that a proposed rule:

- be published in the *Federal Register*;
- provide a statement of the time, place, and nature of public rule making proceedings;
- reference the legal authority under which the rule is proposed; and
- provide either the terms or substance of the proposed rule or a description of the subjects and issues involved.

As discussed in the NPR, seasonal and decorative lighting products have a history of causing deaths and injury. However, CPSC staff agrees with the commenters that UL 588 effectively addresses the risks caused by insufficient wire size, inadequate strain relief, and lack of overcurrent protection. UL 588 addresses these issues because the absence of these minimum safety characteristics poses a risk of injury, fire, and electric shock to consumers. The Commission’s 15(j) rule recognizes that products that do not conform to UL 588 regarding minimum wire size, sufficient strain relief, and overcurrent protection, present an SPH to consumers.

A rule under section 15(j) of the CPSA is not a consumer product safety rule, but rather, a 15j rule is a Commission determination of an SPH. No injury data are required to find that a product presents an SPH under section 15(a)(2) of the CPSA. Under section 15(a)(2), products are evaluated for defects that have the potential to cause a substantial risk of injury to the public. Even if the Commission has no reported injuries, the Commission could still find that a product has a defect that exposes the public to a substantial risk of injury.

Comment 4: One commenter stated that CPSC misused the data cited in the proposed rule, making three fundamental errors:

- implicitly assuming that no older versions of lighting products manufactured before 2000 are in use, which CPSC allegedly uses to show that UL is only partially effective. The commenter asserts that lighting products are used for many years;
- failing to show any recent deaths or injuries since 2000 when UL was allegedly last updated; and
- failing to show that any deaths associated with lighting products were caused by product defects related to the three properties that the UL standards address (safe wire size, safety fuse, and strain protection).

The commenter stated that the proposed rule provides no rational basis for assuming that any residual hazard related to the UL standard exists.

Response 4: This commenter also seems to misunderstand the 15(j) rule. The data presented in the NPR are intended to demonstrate the effectiveness of the voluntary standard, UL 588, not that additional regulation is necessary because UL 588 is only partially effective.

Comment 5: One commenter requested confirmation that current certification markings from UL, Intertek Co. (“ETL”), or the CSA Group, or products carrying a listing are considered to be in conformance with these requirements; and the proposed rule does not require any paperwork, such as certificates or permits.

Response 5: CPSC staff agrees that, unless an importer or a retailer has reason to believe that UL, ETL, or CSA certification markings are counterfeit, such marks should indicate compliance with UL 588. Because a rule under section 15(j) of the CPSA is not a consumer product safety rule, a final rule will not impose any additional paperwork, such as certificates of compliance, on importers or manufacturers.

Comment 6: One commenter questioned the definition of “readily observable” and two commenters wanted clarification on whether all three readily observable characteristics must be met.

Response 6: All three readily observable characteristics on a seasonal and decorative lighting product must be in conformance with UL 588. Under the draft final rule, if one or more characteristics are missing, the product presents an SPH under section 15(a)(2) of the CPSA.

The Commission has not defined the term “readily observable,” preferring instead to evaluate the concept on a case-by-case basis. The proposed rule states:

The Commission did not define a “readily observable” characteristic in either [previous] rule. In the proposed drawstring rule (75 FR 27497, 27499, May 17, 2010), the Commission found that the requirements detailed in the relevant voluntary standard could be evaluated with “simple manipulations of the garment, simple measurements of portions of the garments, and unimpeded visual observation.” The Commission stated: “more complicated or difficult actions to determine the presence or absence of defined product characteristics also may be consistent with ‘readily observable.’” Finally, the Commission stated its intent to evaluate “readily observable” characteristics on a case-by-case basis.³

In this case, CPSC staff considers the three characteristics described in the NPR to be readily observable, consistent with the Commission’s previous statement.

Comment 7: One commenter questioned how CPSC will enforce the requirements for imported products that are proposed in the NPR.

Response 7: The Commission anticipates continuing the existing enforcement policy at ports of entry and at retail outlets, at least in the near future. Currently, CPSC identifies seasonal lighting products that lack certification marks or that appear to have irregular or counterfeit certification marks or that have other characteristics that might suggest noncompliance with applicable standards. After adoption of the rule, CPSC would evaluate such products to assess whether the products meet all three readily observable safety characteristics. If the products do not meet every one of the three readily observable safety characteristics, CPSC generally anticipates requesting that CBP detain the product if offered for importation. Additionally, CPSC practice is to inform the manufacturer or importer of the defect. Depending on the facts and circumstances, other legally-authorized measures may be taken.

Comment 8: One commenter asked whether the readily observable characteristics apply to both indoor and outdoor seasonal and decorative lighting products.

Response 8: The rule applies to both indoor and outdoor seasonal and decorative lighting products. The three readily observable characteristics are independent of the environment for which the products are rated.

Comment 9: Some commenters generally opposed the NPR, stating reasons such as the “lie of global warming”; limiting electrical power consumption by consumers, or the argument that CPSC should regulate other types of products.

Response 9: These comments are out of scope for this rulemaking.

³ 75 FR at 27499.

III. Conclusion

CPSC staff does not recommend making any changes to the rule based on the general comments received in response to the NPR. Some commenters mistakenly believed that the Commission was proposing a new standard for seasonal and decorative lighting that would replace UL 588. Staff agrees with the commenters that UL 588 is effective to reduce the risk of injury associated with seasonal and decorative lighting products, which is part of CPSC staff's justification to recommend that the Commission issue a section 15j rule declaring that products lacking the characteristics specified in the rule present an SPH.

TAB B: Staff's Responses to Comments Related to Economic Issues Associated with the Proposed Rule to Add Seasonal and Decorative Lighting Products to the Substantial Product Hazard List in 16 C.F.R. Part 1120

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UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
BETHESDA, MD 20814

MEMORANDUM

Date: January 26, 2015

TO : Arthur S. Lee, Project Manager, Directorate for Engineering Sciences

THROUGH: Gregory B. Rodgers, AED, Directorate for Economic Analysis
Deborah V. Aiken, Senior Staff Coordinator,
Directorate for Economic Analysis

FROM : Dale R. Ray, Directorate for Economic Analysis

SUBJECT : Staff's Responses to Comments Related to Economic Issues Associated
with the Proposed Rule to Add Seasonal and Decorative Lighting Products
to the Substantial Product Hazard List in 16 C.F.R. Part 1120

I. Introduction

Of the 62 public comments received on the Commission's notice of proposed rulemaking ("NPR") on seasonal and decorative lighting products, 15 commenters mentioned economic issues, including the potential costs or benefits allegedly associated with the proposed rule. None of the commenters submitted data demonstrating their support for, or opposition to, the proposed rule; however, the comments can generally be addressed in the context of existing data presented in the NPR.

The proposed rule under Section 15(j) of the CPSA would not constitute a consumer product safety rule for which the Commission would have been required to publish estimates of potential costs and benefits in a preliminary regulatory analysis. Rather, the proposal is for a rule amending the Commission's substantial product hazard list ("SPH"). Such a rule would:

1. impose essentially no regulatory costs, because conformance to the existing voluntary standard on which the proposal is based is already very high—no nonconforming products or companies have been identified in recent years—and no changes to products, paperwork or other regulatory burdens would be required; and
2. have no measurable, direct safety benefits, because the proposed rule would not change the level of safety associated with the existing voluntary standard, UL 588, *Standard for Safety for Seasonal and Holiday Decorative Products*, 18th Edition, approved on August 21, 2000 ("UL 588").¹

¹ The UL mark and logo are trademarks of Underwriters Laboratories, Inc.

The proposal simply would codify and improve the efficiency of the agency's existing enforcement program for SPHs associated with seasonal and decorative lighting products and maintain the existing level of consumer safety without imposing additional costs.

The Commission did publish, for the NPR, its review of potential impacts on small businesses and other small entities, under provisions of the Regulatory Flexibility Act ("RFA"). This review concluded that there likely would be no significant impacts on a substantial number of small entities (in this case, primarily small importers of seasonal and decorative lighting products). Neither CPSC staff's subsequent investigation, nor staff's analysis of the public comments, has provided any new information that would change this conclusion.

II. Staff's Responses to Economic Issues Raised in the Comments

Specific comments on economic issues include the following:

Comment 1: One commenter supporting the NPR suggested that the CPSC estimate the societal costs of fires and electrocutions associated with holiday and seasonal lights to demonstrate the potential safety benefits of the proposal. Several commenters opposing the proposed rule stated that the likely safety benefits of the proposal would be small.

Response 1: The estimated numbers and societal costs of deaths, injuries, and property damage associated with seasonal and decorative lighting-related fires and electrocutions are very small and generally have declined to near-zero in recent years, consistent with safety improvements to the voluntary standard UL 588. The draft final rule is not designed to yield further safety benefits; rather, the draft final rule would maintain the current high level of safety and help prevent distribution of nonconforming, seasonal and decorative lighting products that present an SPH.

Comment 2: Eleven consumer commenters who oppose the proposed rule stated that the rule could impose compliance costs on industry and that such costs should be weighed against the minimal likely safety benefits of a rule. One commenter stated that the proposed rule failed to address adequately the full scope of the legal and financial impacts of the regulation. Four commenters suggested that cost increases would result in retail price increases. One commenter asked whether the CPSC could justify "millions of dollars" in costs.

Response 2: The draft final rule does not impose any new design, manufacturing, testing, certification, reporting, labeling, or other cost burdens on industry. Rather than add "millions of dollars," in costs, the cost of the draft final rule essentially should be zero. In the NPR, CPSC staff estimated that the level of conformance to the existing voluntary standard is well in excess of 90 percent. Staff has identified very few nonconforming seasonal and decorative lighting products on the market, even among the lowest-priced products. Thus, no significant wholesale or retail price increases are likely to result from finalizing the rule. To the extent that any importers market nonconforming seasonal and decorative lighting products, these firms could incur minimal costs of up to a few cents per typical 50-light string, to incorporate the correct wire size, proper strain relief, or overcurrent protection into their product. Nonconforming goods, however, already are subject to CPSC enforcement action, including recall, seizure, or

forfeiture, upon importation. Thus, because no changes to products or importation practices would be needed, a final rule would likely have little, if any, impact on costs or consumer choice. A final rule would create efficiencies for the agency's enforcement programs.

Comment 3: One commenter opposed to the NPR asserted that a CPSC rule would be duplicative of other existing regulations (presumably referring to the voluntary standard), thereby impacting costs and consumer choices.

Response 3: The draft final rule designates as an SPH any seasonal and decorative lighting products that do not conform to three elements of the existing voluntary standard UL 588. This is consistent with current CPSC enforcement practice. The draft final rule would impose no new requirements or cost burdens on industry. Similarly, because no products would have to be discontinued or withdrawn from the market, the draft final rule would not affect consumer choice.

Comment 4: One commenter opposed to the NPR questioned whether the proposed rule would maintain "fair and equitable market access for trade partners," and whether the Commission had explored less restrictive regulatory alternatives.

Response 4: The draft final rule would not deny or restrict market access in any way. All known products subject to a final rule are imported. Because virtually all such products are estimated to conform already to the voluntary standard, no new restrictions on importation into the United States would occur. Any noncomplying products would be subject to CPSC enforcement action, as has been the case in the past, and undertaking enforcement action against these products would continue to be the CPSC's practice, even without the draft final rule.

No regulatory alternatives exist that would be less restrictive to industry. Under the draft final rule, business practices would not have to change, and therefore, no restrictions on trade would result.

III. Conclusion

Staff does not recommend any changes to the proposed rule based on the economic comments received on the proposed rule. The Commission determined preliminarily in the NPR that the level of conformance to the existing voluntary standard, UL 588, is very high and that the proposed rule would not likely have significant economic impacts on a substantial number of small entities, including small importers and other businesses. The public comments provided no evidence supporting revisions to these conclusions. Although the Commission was not required to perform a cost-benefit analysis of the proposal, CPSC staff's analysis indicates that there would be essentially no new costs or benefits associated with the draft final rule, except for non-quantifiable gains in the efficiency of the agency's enforcement program activities.

**TAB C: Staff's Responses to Technical Comments on the
Proposed Rule to Add Seasonal and Decorative Lighting
Products to the Substantial Product Hazard List in 16 C.F.R.
Part 1120**

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UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
BETHESDA, MD 20814

MEMORANDUM

Date: March 20, 2015

TO : Arthur S. Lee, Project Manager, Directorate for Engineering Sciences

THROUGH: Joel Recht, Associate Executive Director, Directorate for Engineering Sciences
Andrew M. Trotta, Division Director, Electrical Engineering Division

FROM : Robert T. Garrett, Electrical Engineer, Electrical Engineering Division

SUBJECT : Staff's Responses to Technical Comments on the Proposed Rule to Add Seasonal and Decorative Lighting Products to the Substantial Product Hazard List in 16 C.F.R. Part 1120

I. Introduction

On October 16, 2014, the U.S. Consumer Product Safety Commission ("CPSC," "Commission") published a notice of proposed rulemaking ("NPR") in the *Federal Register*¹ (79 *Fed. Reg.* 62082) to amend the substantial product hazard ("SPH") list codified at 16 C.F.R. part 1120 ("part 1120"). The NPR proposed to add seasonal and decorative lighting products that lack one or more of three readily observable safety characteristics (minimum wire size, sufficient strain relief, or overcurrent protection) to the SPH list. These readily observable characteristics are embodied in an existing voluntary standard, UL 558, *Standard for Safety for Seasonal and Holiday Decorative Products*, 18th Edition, approved on August 21, 2000 ("UL 588").²

The Commission received 62 comments and questions on the NPR. In this memorandum, the Electrical Engineering Division summarizes the technical comments received in response to the NPR and provides CPSC staff's responses to comments. Technical comments are those referencing the requirements for seasonal and decorative lighting products in the voluntary standard. One commenter supporting the rule discussed technical issues directly related to the voluntary standard, including the manner of implementation within the proposed rule. The commenter had six technical comments and questions.

II. Staff's Responses to Technical Comments

Comment 1: One commenter asked the Commission to affirm that the proposed rule would not apply to the following:

- Battery-operated products;

¹ <http://www.gpo.gov/fdsys/pkg/FR-2014-10-16/pdf/2014-24378.pdf>.

² The UL mark and logo are trademarks of Underwriters Laboratories, Inc.

- Solar-powered products (either direct-powered solar, or one with a storage system that is used when the sun is not out, such as a rechargeable battery to power the lights);
- Transformer or low-voltage power supplied products, such as adaptor-powered products that use a low-voltage, Class 2 power source or ITE power source, which are third party certified by an NRTL lab; and
- Flexible Lighting Products, as covered in the scope of UL 2388 (described as “Flexible Tube Lighting Strings” in the proposed rule).

Response 1: CPSC staff agrees with the commenter that the scope of the rule is not intended to include the types of products listed above. Section 1120.2(d) of the draft final rule already states that battery-operated products, products that operate from a transformer or low-voltage power supply, flexible tube lighting [clarified in response 2 below] intended for illumination; and portable electric lamps that are used to illuminate seasonal decorations are all outside the scope the rule. Products listed as out of scope are excluded because they are not subject to the same types of hazards as products within the scope of the rule; or, such products are not subject to UL 588, but rather are subject to a different voluntary standard.

Staff recommends clarifying the definition in section 1120.2(d) of the draft final rule to state that solar-powered lights are not within the scope of the final rule because solar-powered seasonal lights are not connected to a 120-volt branch circuit and do not present the same risk of injury of shock and fire. Section 1120.2(d) of the draft final rule now lists “solar-powered products” as outside the scope of the final rule.

Comment 2: One commenter stated that the proposed rule should clarify products that are addressed by the term “flexible tube lighting strings” because CPSC could be excluding products that should fall within the scope of the rule because they are addressed in UL 588. The commenter stated that use of the term “flexible tube lighting strings” could describe a UL 588-covered product connected directly across a 120V supply that uses a standard string of lights placed inside a rigid or flexible tube. The commenter suggested changing the term “flexible tube lighting strings” to “flexible lighting products,” in accordance with the scope of ANSI/UL 2388, Sections 1.1 and 1.2; and the commenter suggested adding: “Flexible Lighting Products that conform with the ANSI/UL 2388 scope and definitions” to the “Rope, tube, . . .” listing in “out of scope” products.

Response 2: CPSC staff agrees that the term “flexible tube lighting strings” could be misconstrued to exempt some products that are covered by UL 588. Accordingly, staff recommends changing the definition of “seasonal and decorative lighting products” in section 1120.2(d) of the final rule from the phrase “flexible tube lighting strings of lights intended for illumination” to the phrase “flexible lighting products incorporating non-replaceable series and series/parallel connected lamps enclosed within a flexible polymeric tube or extrusion” to describe out-of-scope lighting products. CPSC staff believes that this language, taken from UL 2388, the voluntary standard that applies to flexible lighting, will clarify that flexible lighting products subject to UL 2388 are not within the scope of the rule. This clarification is not intended to alter the scope of products covered by the rule; rather, the revision merely clarifies that flexible tube lighting products covered by UL 2388 are not within the scope of the rule.

Comment 3: One commenter asked for confirmation that seasonal and decorative lighting products that are third party certified to ANSI/UL 588 by a Nationally Recognized Testing Laboratory (“NRTL”), such as UL, CSA, or ETL “would be considered in compliance with this rule and would not require further review.” Additionally, the commenter requested confirmation that products such as a pre-lit artificial tree, or a pre-lit artificial wreath, as long as the decorative lighting (for example, a 120V cord connected incandescent or LED light string that is series or parallel connected and has push in, screw in or non-replaceable bulbs) is third party certified by an NRTL (such as UL, CSA, or ETL) to ANSI/UL 588, are considered in compliance with the proposed rule and would not require further review, even if the entire pre-lit artificial tree or wreath, as a whole, with lights, is not UL, CSA, or ETL certified.

Response 3: According to the Occupational Health and Safety Administration (“OSHA”), an NRTL is a private-sector organization recognized by OSHA to perform required product certification to electrical standard requirements:

Each NRTL has a scope of test standards that they are recognized for, and each NRTL uses its own unique registered certification mark(s) to designate product conformance to the applicable product safety test standards. After certifying a product, the NRTL authorizes the manufacturer to apply a registered certification mark to the product. If the certification is done under the NRTL program, this mark signifies that the NRTL tested and certified the product, and that the product complies with the requirements of one or more appropriate product safety test standards. Users of the product can generally rely on the mark as evidence that the product complies with the applicable OSHA approval requirement(s) and is safe for use in the workplace.

OSHA’s website as of February 23, 2015 (<https://www.osha.gov/dts/otpca/nrtl/>).

Staff interprets the comment to suggest that if a product has a mark indicating certification by an NRTL, CPSC should consider the product to be compliant with the applicable provisions of UL 588 and not conduct any further review of the product. CPSC staff believes that products that are legitimately listed to UL 588 by an NRTL are likely to be in compliance with UL 588 and are not likely to present an SPH. However, because such marks are sometimes counterfeit, CPSC will use product labeling as but one factor in its decision-making process when determining which products to investigate for compliance.

Regardless of labeling, CPSC staff may evaluate any electrical product for whether the product poses an SPH. For example, CPSC staff’s existing practice is to evaluate products at the ports to assess whether they present an SPH, and noncompliance to a relevant voluntary standard may provide evidence of a hazard. Even if electrical products are not subject to a rule under section 15(j) of the CPSA, CPSC field staff can collect samples of nonconforming products and send them to CPSC’s National Product Testing and Evaluation Center (“NPTEC”) for further testing and evaluation.

Comment 4: The commenter asked why “unlighted ornaments that replace a push-in mini-bulb” are exempt from this rule, suggesting that these ornaments have the same fire and shock hazard as ornaments that are lighted, have the same strain relief and wire gauge requirements as lighted ornaments in UL 588, and should be treated as in scope. The commenter added that the only difference between lighted and unlighted ornaments of this type is that they are not required by UL 588 to have fusing.

Response 4: Table 1 in the NPR provided a non-exhaustive list of examples of lighting products that fall within and outside of the scope of the proposed rule. Ornaments that replace a push-in mini-bulb do not fall within the definition of products in Section 1120.2 (d) of the final proposed rule because these products do not have 120-volt input ratings. Additionally, in CPSC staff’s experience, ornaments, regardless of whether they are lighted or unlighted (including motorized and electronic items), have not presented the same hazard as products within the scope of the rule. In fact, CPSC staff has not found any reports in CPSC’s databases of such products that presented an SPH.

Comment 5: One commenter pointed out a typographical error in section II of the NPR, in the preamble at item 2, on page 62085, “Sufficient Strain Relief.” The commenter states that the correct reference for the method of strain relief testing demonstrated in the NPR should be section SB15, instead of section SB16, and that Table 2 in the NPR should be revised to provide for a 20-lb. weight, instead of a 24-lb. weight. The commenter also suggested changing the reference of section 79 to paragraph 79.2 in section II of the NPR, item 2, on page 62085 because of the method of testing demonstrated in the NPR. In addition, the commenter noted that the testing method in section II of the NPR, item 2, on page 62085, “Sufficient Strain Relief,” is vague and unrepeatable, by specifying that wire is not allowed to “stretch” as the wire will normally stretch in this test. UL 588 specifies that the wire not stretch more than 1/16” at the entry point of the wire to the lampholder, not that the wire below that point cannot stretch.

Response 5: CPSC staff agrees with the commenter regarding the correct citation for strain relief requirements, and staff has revised the citation to UL 588 in section 1120.3(c)(2) regarding strain relief in the draft final rule to incorporate section SB15 of UL 588, instead of section SB16. Staff also recommends publishing a revised Table 2 in the preamble to the final rule, listing the corrected requirements from UL 588, as shown below. Revised Table 2 updates the strain relief load from 24 lbs. to 20 lbs. and references SB15, instead of SB16. Staff disagrees that section 79 should be changed to paragraph 79.2 because the strain relief method called out in section 79 of UL 588 includes paragraph 79.2.

The NPR language summarized the failure criteria for strain relief to demonstrate that strain relief is readily observable by hanging the appropriate weight and evaluating the results. However, the regulation text adopts the specific requirements for strain relief in UL 588. Section 1120.3(c)(2) specifies that sufficient strain relief requirements are according to UL 588 sections 15, 71, 79, and SB15 (changed from SB16 to SB 15). Although the cord is allowed to “stretch” within limits as permitted by UL 588 during the strain relief test, CPSC staff’s experience in observing nonconforming seasonal and decorative lighting products is that such noncomplying products, in an overwhelming majority of observations, tend to be constructed in a way that they

fail catastrophically—*i.e.*, the conductors shred apart, with individual strands stretching to their breaking points.

Revised TABLE 2—READILY OBSERVABLE CHARACTERISTICS FOR SEASONAL AND DECORATIVE LIGHTING PRODUCTS

Seasonal and decorative lighting products	Readily observable characteristics			
	Minimum wire size (AWG) <i>UL 588</i> <i>Section 6</i>	Sufficient strain relief (load weight)		Overcurrent protection qty. <i>UL 588</i> <i>Section 7</i>
		Plugs/load fittings <i>UL 588</i> <i>Sections 15 and 71</i>	Lampholders <i>UL 588</i> <i>Sections 79 and SB16 SB15</i>	
Series-connected lighting product:				
With Load Fitting	20 (Polarized Plug)	20 lbs. (smaller than 18 AWG).	24 lbs <u>20lbs</u>	1
	22 (Non-Polarized Plug)		8 lbs	2
Without Load Fitting	22 (Polarized Plug)		8 lbs	1
	22 (Non-Polarized Plug)		8 lbs	2
Parallel-connected light product:				
With or Without Load Fitting	20 (XTW)	20 lbs. (20 AWG)	24 lbs <u>20lbs</u>	1
	18 (all others) All Polarized Plugs	30 lbs. (18 AWG)		

Comment 6: One commenter stated that in Section II of the NPR, on page 62085, the measurement of wire size (AWG), as shown in Picture 3, is not a very accurate method of measurement and is intended for solid core wire, not stranded, as is required to be used in decorative lighting strings covered by UL 588. The commenter is concerned that using a wire gauge with stranded wire can give false positives for undersized wire, or false negatives for properly sized wires, depending on twisting and other relevant factors. The commenter states that the ANSI/UL wire standard uses a different method of determining wire size by measuring the circular mil area. Although the wire gauge method may be sufficient to determine the initial need for further examination, the commenter states that the wire gauge method should not be used as the final determination for undersize wiring.

Response 6: The draft final rule incorporates by reference the minimum wire size requirements in section 6 of UL 588. Section 6 of UL 588 does not state a method for determining or measuring the wire size. Accordingly, the draft final rule does not require any particular test; the draft final rule merely requires compliance to section 6 of UL 588 regarding minimum wire size. The NPR provided an example of one method for measuring wire size.

The purpose of providing a picture of measuring minimum wire size in the NPR was not to favor one method of measuring wire size over another, but to demonstrate that wire size is readily observable through a direct measurement of the wire. CPSC staff acknowledges that other methods to directly measure wire size exist which can also be done quickly and easily. Moreover, CPSC staff's experience with observing nonconforming seasonal and decorative lighting products demonstrates that such products typically fall short of conformance to wire size by a large margin, regardless of the method used to determine compliance with section 6 of UL 588.

III. Conclusion

Staff recommends minor clarifications to the proposed rule in response to the technical comments received on the NPR. In section 1120.2(d) of the final rule, staff recommends modifying two phrases to clarify products that are outside the scope of the final rule. Staff recommends replacing “flexible tube lighting strings of lights intended for illumination” with “flexible lighting products incorporating non-replaceable series and series/parallel connected lamps enclosed within a flexible polymeric tube or extrusion” and incorporating “solar-powered products.” These clarifications are not intended to alter the scope of products covered by the rule. The revisions merely clarify the products that are not within the scope of the rule. Additionally, in section 1120.3(c)(2) of the draft final rule, staff recommends citing section SB15 of UL 588, instead of section SB16. Staff recognizes that using SB15 of UL 588 is the proper reference for the strain relief testing for lampholders in parallel-connected lighting products.

**TAB D: Number of Recalls and Import Stoppages of
Seasonal and Decorative Lighting Products Since August
2014**

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UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
BETHESDA, MD 20814

MEMORANDUM

Date: February 10, 2015

TO : Arthur Lee, Project Manager
Division of Electrical Engineering

THROUGH: Robert Howell, Acting Assistant Executive Director, Office of Compliance and Field Operations

Marc Schoem, Deputy Director, Office of Compliance and Field Operations

Scott Simmons, Director, Defect Investigations Division

Blake Rose, Lead Compliance Officer Electrical/Fire/Mechanical Hazards Team

FROM : Mary Kroh, Compliance Officer, Defect Investigations Division

SUBJECT : Number of Recalls and Import Stoppages of Seasonal and Decorative Lighting Products Since August 2014

I. Introduction

This memorandum provides information related to investigations of seasonal and decorative lighting products conducted by the Office of Compliance and Field Operations.

From 1974 to August 2014, CPSC staff obtained 47 voluntary recalls of seasonal and decorative lighting products involving a total of about 3.6 million units. In addition to product recalls, from 2005 through August 2014, CPSC staff identified 127 shipments at import involving a total of nearly 200,000 lighting units, where the products may not have complied with the relevant UL standard.

II. Recall and Import Stoppage Data Update

Since August 2014, CPSC has not conducted any recalls of seasonal and decorative lighting products. From September 2014 through February 10, 2015, as shown in Table 1, CPSC stopped 11 shipments of seasonal and decorative lighting products at the ports, involving a total of approximately 37,000 units. These import stoppages involved products that were not in compliance with UL's *Standard for Safety for Seasonal and Holiday Decorative Products* ("UL 588"). Table 1 provides details on recent import stoppages.

Table 1. Seasonal and Decorative Lighting Import Stoppages After August 2014

Product Name	Year	Defect/Hazard	# Units	Tot. by Yr.
Seasonal Light Strings	2014	undersized wire, insufficient strain relief, and absence of overcurrent protection - risk of fire and electrical shock	800	
LED Holiday Light Strings	2014	undersized wire, insufficient strain relief, and absence of overcurrent protection - risk of fire and electrical shock	500	
LED Light Set	2014	undersized wire, insufficient strain relief, and absence of overcurrent protection - risk of fire and electrical shock	1,600	
Seasonal Light Strings	2014	absence of strain relief on the controller box, lack of overcurrent protection, the use of a non-conforming two pin power plug, and undersize wiring - risk of fire and electrical shock	14,010	
LED Lights	2014	including undersized wire, insufficient strain relief and the absence of spare fuses - risk of fire and electrical shock	2,900	
LED Lights	2014	undersized wire, insufficient strain relief, and the absence of spare fuses - risk of fire and electrical shock	3,232	
Decorative LED Lights and Light Strings	2014	undersized wire, insufficient strain relief and the absence of spare fuses - risk of fire and electrical shock	3,820	
LED Music Lights	2014	undersized wire, and insufficient strain relief - risk of fire and electrical shock	1,710	
Christmas LED Light Strings	2014	the plug is not polarized, absence of overcurrent protection, the plug blades appear to be aluminum, the supply wires are undersized, the power plugs and lampholders failed the strain relief test, there are no warning labels on the light set to state if the product is for indoor or outdoor use - risk of fire and electrical shock	1,000	
LED Lights	2014	undersized wire, insufficient strain relief, lack of environmental seals to prevent water from reaching electrical parts, accessibility to parts operating at shock hazard levels - risk of fire and electrical shock	5,872	35,444
LED Seasonal Light Strings	2015	undersized wiring, insufficient strain relief and the absence of overcurrent protection - risk of fire and electrical shock	1,549	1,549
TOTAL UNITS			36,993	36,993

**TAB E: Seasonal and Decorative Lighting Products: Update
on Reported Fire or Shock Incidents from 1980 through
March 2015**

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UNITED STATES
CONSUMER PRODUCT SAFETY COMMISSION
BETHESDA, MD 20814

MEMORANDUM

Date: April 13, 2015

TO: Arthur Lee
Project Manager, Holiday Light 15J Project
Directorate for Engineering Sciences
Division of Electrical Engineering

THROUGH: Kathleen Stralka
Associate Executive Director
Directorate for Epidemiology

Stephen Hanway
Director, Division of Hazard Analysis

FROM: David Miller
Mathematical Statistician, Division of Hazard Analysis

SUBJECT: Seasonal and Decorative Lighting Products: Update on Reported Fire or Shock Incidents from 1980 through March 2015

I. Introduction

The Consumer Product Safety Improvement Act of 2008 ("CPSIA") expanded Section 15 of the Consumer Product Safety Act ("CPSA"). Section 15(j) of the CPSA allows the Commission to specify by rule for a consumer product, or class of consumer products, characteristics whose presence or absence the Commission determines presents a substantial product hazard ("SPH").

CPSC Epidemiology Hazard Analysis staff ("EPHA") prepared this updated memorandum to describe the number of reported fire or shock incidents in CPSC databases involving seasonal and decorative lighting products from 1980 to March 2015, in support of a rulemaking under section 15(j) of the CPSA. This memorandum will show the reported number of incidents (separately for fatal and nonfatal incidents) by year. Although these incidents do not provide a basis for estimates, they demonstrate that the number of fatal and nonfatal seasonal and decorative lighting products fire and shock incidents (and the number of resulting deaths) reported to CPSC have declined over this 35-year period.

II. Seasonal and Decorative Lighting Product Incident Data

CPSC has seasonal and decorative lighting product incident data from the Injury or Potential Injury Database ("IPII"), National Electronic Injury Surveillance System ("NEISS"), and the Death Certificate Database ("DTHS"). EPHA staff conducted a search of these three databases for incidents that occurred from 1980 to March 2015, and that included one of these

two product codes: ‘1711 – Christmas tree lights’ or ‘1736 – Christmas lights, electric (excluding Christmas tree lights).’ CPSC staff limited the scope to fire and shock hazard incidents. Some incident reports describe seasonal lighting as a possible cause of the incident. Such cases were not included in the dataset for this rulemaking. The data presented are limited to incident reports concluding that seasonal or decorative lighting products were the cause of a fire or shock incident.

Neither IPII, nor DTHS are statistical samples. CPSC staff cannot use information from these databases to support a national estimate of the number of incidents involving seasonal and decorative lighting products. NEISS is a probability sample, but CPSC staff cannot produce an adequately precise seasonal and decorative lighting product national injury estimate because too few NEISS incidents (16) have been reported for these products. The seasonal and decorative lighting product incidents captured by our databases each year, although not sufficient to produce estimates, provide annual minimums of seasonal and decorative lighting product incidents.

If, as one might expect, CPSC databases are able to capture a larger proportion of the fatal incidents (for example, if fatalities are more likely to be reported by news media, which CPSC data captures) than the nonfatal incidents, then CPSC tallies for deaths and fatal incidents will be closer to the true numbers than CPSC staff’s tallies for nonfatal incidents. However, CPSC staff does not know the extent to which fatalities and nonfatalities are underreported.

For the NPR, CPSC staff conducted a search for incidents that involved seasonal and decorative lighting products reported between 1980 and May 2014. CPSC staff has updated this data, and found a total of 133 fatal incidents causing 258 deaths, and 1,405 nonfatal incidents that involved seasonal and decorative lighting products, were in-scope, and occurred between 1980 and 2013.¹ For the final rule, staff also searched IPII, NEISS, and DTHS for in-scope incidents reported from January 2014 through March 2015. CPSC staff found an additional 25 in-scope incidents that occurred in 2014, and seven incidents that occurred in 2015. All of the 25 incidents in 2014 were nonfatal incidents. One of the seven incidents in 2015 was a fatal incident that caused one death. Figure 1 shows a 3-year moving average of tallies for fatal seasonal and decorative lighting incidents reported to CPSC staff that occurred in 1980 to 2014. Figure 2 shows a 3-year moving average of tallies for reported deaths from these incidents. A single incident can result in multiple deaths, hence the distinction. The graphs use 3-year averages to smooth out short-term fluctuations.

¹ Staff has updated incident data from 1980 to 2013 to include retailer reports.

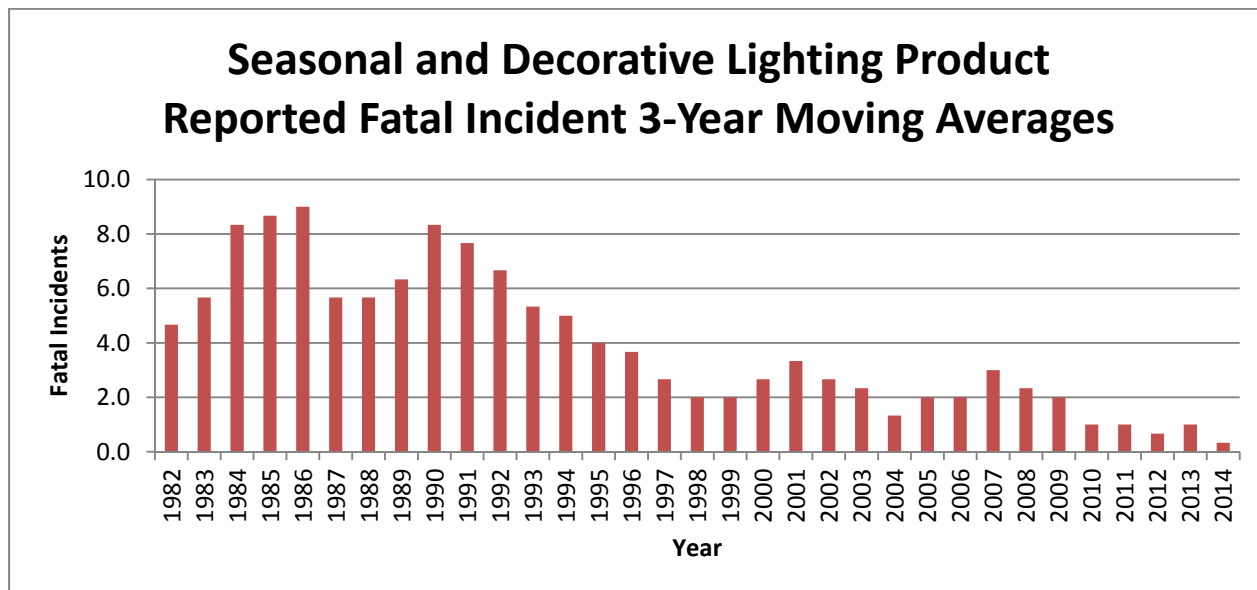


Figure 1. Three-Year Moving Averages² of Reported Fatal Seasonal and Decorative Lighting Product Incidents from 1980 – 2014

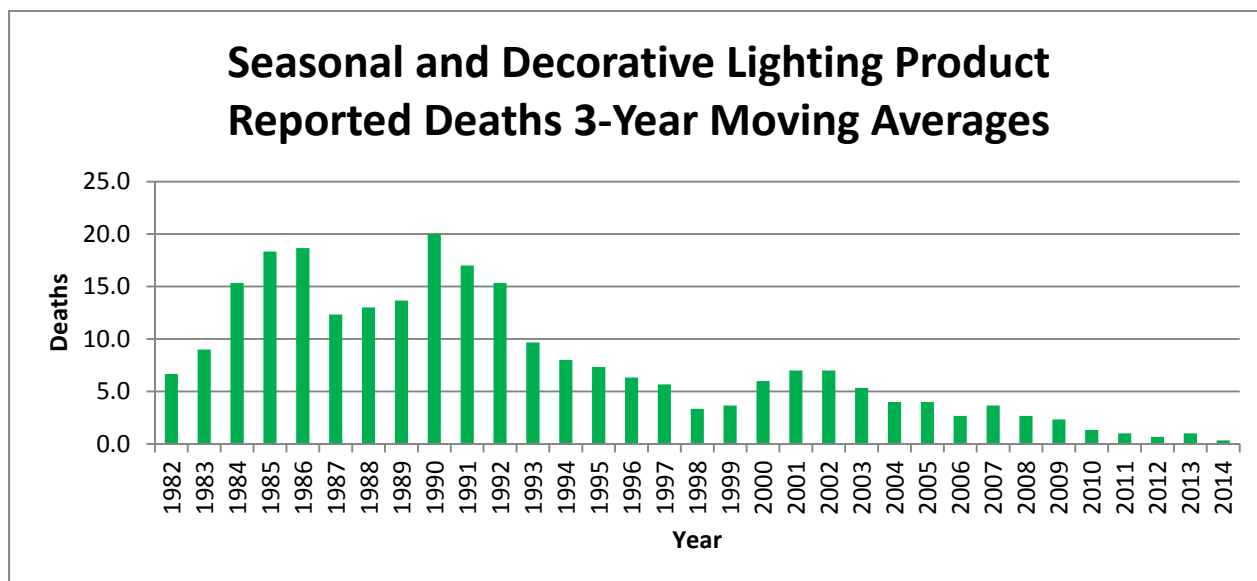


Figure 2. Three-Year Moving Averages of Reported Seasonal and Decorative Lighting Product Deaths from 1980 – 2014

Figure 3 shows a 3-year moving average of tallies for reported nonfatal incidents (including cases from IPII and NEISS). In this period (1980–2014), CPSC staff deemed 130 incidents

² The year refers to the average for the 3 years leading up to, and including, that year. For example, the number for 2000 (6.0), is the annual average number of reported fatal incidents from 1998 to 2000.

reported between IPII and NEISS to be *possible* seasonal or decorative lighting product fire or shock incidents. Staff excluded possible lighting product incidents because the incidents were not identified conclusively to fall within the scope of seasonal or decorative lighting product incidents. As mentioned earlier, these tallies are not estimates of seasonal and decorative lighting product incidents, but instead, are minimums because represents all reported incidents that CPSC has captured in its databases for this period.

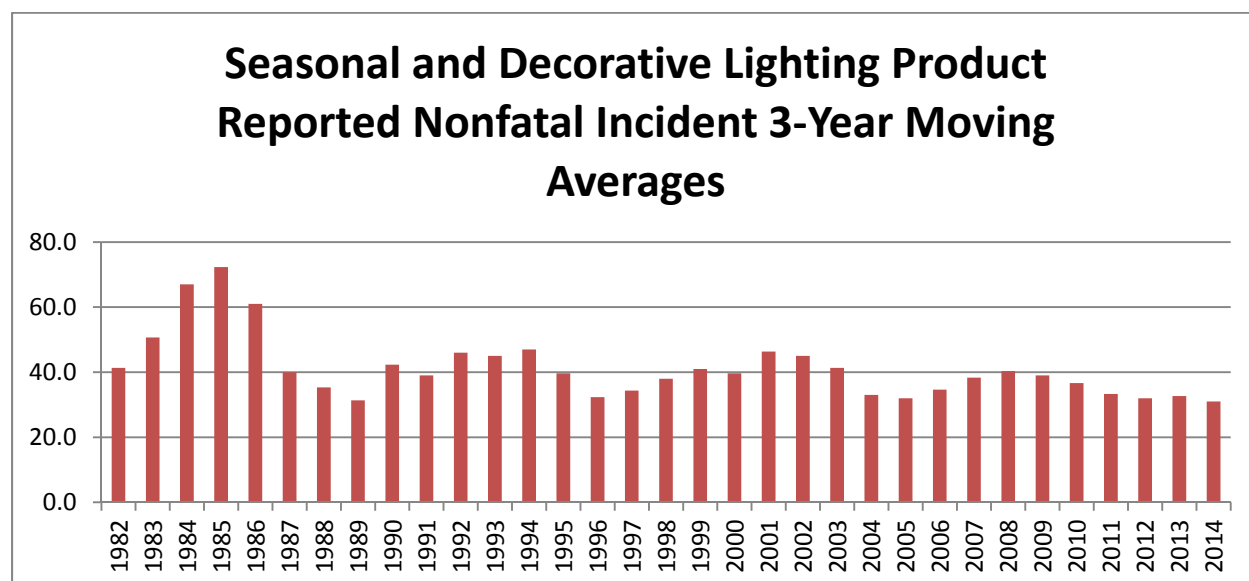


Figure 3. Three-Year Moving Averages of Reported Seasonal and Decorative Lighting Product Nonfatal Incidents from 1980 – 2014

The graphs demonstrate that CPSC is aware of more fatal and nonfatal reported incidents in the 1980s and the early 1990s than in subsequent years. The number of reported incidents has declined over time. Table 1 shows the annual average number of incidents for five different periods for fatal incidents, deaths, and nonfatal incidents. The 35-year period is broken up into five, 7-year periods. Reporting may not be complete for the most recent period because sometimes, CPSC receives reports of incidents years after they have occurred. Table 1 shows a similar overall decrease as the figures above demonstrate. The number of reported fire and shock incidents associated with seasonal and decorative lighting products, including fatal incidents, deaths, and nonfatal incidents, has declined since the 1980s and early 1990s.

Table 1. Seasonal and Decorative Lighting Product Annual Average of Reported Fatal Incidents, Deaths, and Nonfatal Incidents from 1980 – 2014

Years	Fatal Incidents	Deaths	Nonfatal Incidents
1980 – 1986	6.7	12.6	54.1
1987 – 1993	6.3	13.6	40.9
1994 – 2000	2.9	5.9	37.4
2001 – 2007	2.3	3.9	38.6
2008 - 2014	0.9	1.0	33.3

Table 2 provides a comparison of the number of reported deaths and nonfatal incidents associated with seasonal and decorative lighting products reported to CPSC for the period before and after the UL standard was updated in the 1990s regarding the readily observable safety characteristics described in the rule. Table 2 shows that CPSC is aware of fewer deaths and nonfatal incidents after the changes to the UL standard occurred.

Table 2. Reported Incidents Associated with Seasonal and Decorative Lighting Products

Period	1980–1996	2000–2014
Deaths	202	45
Nonfatal Incidents	762	545
Average Deaths per year	11.9	3.0
Average Nonfatal Incidents per year	44.8	36.3

III. Conclusion

CPSC Epidemiology Hazard Analysis staff (“EPHA”) demonstrates that although these incident reports do not provide a basis for estimates, the number of reported fatal and nonfatal seasonal and decorative lighting product fire and shock incidents (and the number of resulting deaths) reported to CPSC have declined over this 35-year period.